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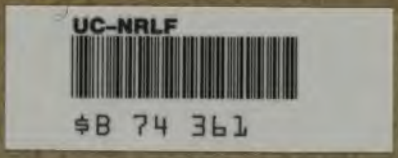

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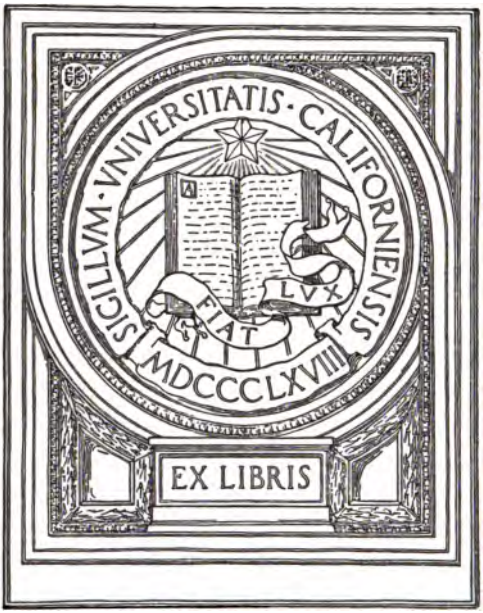
IN MEMORIAM
George Davidson
1825-1911



Professor of Geography
Univ. of Calif.

WRECK OF THE STEAMER VALENCIA

REPORT TO THE PRESIDENT
OF THE FEDERAL COMMISSION OF
INVESTIGATION

APRIL 14, 1906

WASHINGTON : : GOVERNMENT PRINTING OFFICE : : 1906

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REPORT TO THE PRESIDENT OF THE FEDERAL COMMISSION OF INVESTIGATION UPON THE WRECK OF THE STEAMER VALENCIA.

CHAPTER I.

APPOINTMENT AND PROCEEDINGS OF THE COMMISSION.

On February 7, 1906, the President issued the following order:

THE WHITE HOUSE,
Washington, February 7, 1906.

SIR: You are hereby directed to instruct Lawrence O. Murray, Assistant Secretary of Commerce and Labor, and Herbert Knox Smith, Deputy Commissioner of Corporations, as well as Captain William T. Burwell, U. S. Navy, who will, for this purpose, be detailed for service in your Department by the Secretary of the Navy, to proceed to Seattle, Washington, and there to make thorough and complete investigation of all the circumstances attending the wreck of the steamer *Valencia* and the cause or causes thereof, and any misconduct, negligence, or dereliction of duty on the part of anyone related thereto and having any bearing upon the loss of life occasioned by said disaster; and also, as you may direct, to investigate such other matters bearing upon the safety of traffic in navigable waters of the United States in that vicinity and the effectiveness and sufficiency of the present aids to navigation along said waters, and to make full report thereon with recommendations for such departmental or legislative action as may be indicated by said report and findings.

Very truly, yours,

THEODORE ROOSEVELT.

The SECRETARY OF COMMERCE AND LABOR.

In accordance therewith, on the same day, the Federal Commission of Investigation upon the wreck of the steamer *Valencia* was formed by the appointment, as members of the Commission from the Department of Commerce and Labor, of Lawrence O. Murray, Assistant Secretary of Commerce and Labor, and Herbert Knox Smith, Deputy Commissioner of Corporations, and from the Navy Department of Captain William T. Burwell, U. S. Navy, commandant of Puget Sound Navy Yard.

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Mr. Murray was appointed chairman of the Commission and Mr. Smith secretary. The nature of its work was defined in the following order:

DEPARTMENT OF COMMERCE AND LABOR,
OFFICE OF THE SECRETARY,
Washington, February 7, 1906.

SIR: Pursuant to the direction of the President, dated February 7, 1906, you are hereby instructed to proceed to Seattle, Washington, at once, and there and in that vicinity, in company with Captain William T. Burwell, U. S. Navy, commandant of Puget Sound Navy Yard, and Mr. Herbert Knox Smith, Deputy Commissioner of Corporations, make thorough and complete investigation of all the circumstances attending the wreck of the steamer *Valencia*, and to inquire into the cause or causes thereof and into any misconduct, negligence, or dereliction of duty on the part of anyone related thereto and having any bearing on the loss of life occasioned by said disaster.

You will also, as your discretion dictates, take up and investigate such other matters bearing upon the safety of traffic upon the navigable waters of the United States adjoining the coast of Washington and the Straits of Juan de Fuca, and the entrance thereof, together with the particular points of danger to such traffic presented by such waters, and the question of sufficiency and effectiveness of the present light-houses, fog signals, and life-saving stations, and of other aids to navigation along said waters.

And upon all the matters so considered by you you will make full report, accompanying such report by recommendations for such departmental or legislative action as you may deem to be required by your findings for the better protection of life and property concerned in such traffic.

Respectfully, yours,
V. H. METCALF,
Secretary.

To LAWRENCE O. MURRAY,
Assistant Secretary of Commerce and Labor.

On February 9, 1906, Messrs. Murray and Smith left Washington, arriving in Seattle on the evening of February 13. On Wednesday, February 14, Captain Burwell joined them, and the Commission opened its work by a conference with a committee of the Seattle Chamber of Commerce, and upon the request of said committee arranged that a representative of the Chamber of Commerce should sit with the said Commission for the purpose of aiding it. William H. Gorham, esq., attorney at law, was designated by the Chamber of Commerce for this purpose, and attended all the hearings of the Commission, and also accompanied the Commission on its trip to the scene of the wreck.

The Commission commenced taking testimony at 2 o'clock p. m. February 14 and carried on its work continuously until 1 p. m.

March 1, when the Commission adjourned. The testimony of two witnesses was taken later by Captain Burwell, after the departure of Messrs. Murray and Smith from Seattle, and Mr. Smith took the testimony of one witness in San Francisco on March 4. On February 17 the Commission took the light-house tender *Columbine* and proceeded down the Sound to Neah Bay, near the entrance to the Straits, and on the following day, the 18th, cruised around Cape Flattery, examining the coast and testing the fog signals at the Cape, and then proceeded to a point several miles west of Carmanah Light, examining the coast, and then returned to Neah Bay, where they spent the night of the 18th. On the 19th they inspected Waaddah Island, in Neah Bay, with a view to a proper location for a life-saving station, and then returned to Seattle.

On February 23, after full public notice, a public hearing was given and opportunity afforded to all who desired to present suggestions and arguments for needed improvements in the nature of light-houses, fog signals, life-saving service, etc., and a number of individuals and persons representing organizations interested in the traffic of Puget Sound and the Pacific coast appeared. A number of suggestions and recommendations were also submitted to the Commission in the form of written memoranda.

The hearings of the Commission for the first two days were held in a room provided by the district attorney in a building occupied by the Federal authorities, and thereafter Hon. Cornelius H. Hanford, judge of the United States District Court, very courteously allowed the Commission the use of his court room, where all subsequent hearings were held. All hearings and the taking of testimony were public, and were attended by a considerable number of citizens, various commercial organizations deputing representatives to be present. Sixty witnesses were examined. The testimony in the matter covered about 1,860 typewritten pages and included more than 30 exhibits.

The Commission also commenced a reinspection of the American steamers coming into Puget Sound. For that purpose Lieutenant-Commander Robert E. Coontz, U. S. Navy, Lieutenant Arthur Crenshaw, U. S. Navy, and Carpenter William F. Hamberger, U. S. Navy, were detailed by the Secretary of the Navy with instructions to report the result of the reinspection to the Commission.

The Commission desires to express its high appreciation of the exceptional courtesy and good will displayed toward it by the

citizens of Seattle and adjoining towns, and especially the great assistance rendered to it by William H. Gorham, esq., of Seattle, throughout the extent of its work; also the assistance of Mr. Josiah Collins, of the Seattle Chamber of Commerce, and the courtesy of the Seattle Post-Intelligencer, which furnished the Commission with enlarged copies of a number of valuable photographs taken by one of its staff near the scene of the wreck and shortly after its occurrence.

In general, the Commission met with hearty cooperation from all persons, and many witnesses appeared at the request of the Commission at considerable inconvenience to themselves. Substantially all the survivors of the wreck—officers, crew, and passengers—were examined (except a few who had departed for their homes in distant places before the arrival of the Commission), and also a number of gentlemen expert in questions of navigation and various persons who were present in sundry capacities upon the vessels that went to the rescue of the *Valencia* after the wreck; so that the Commission feels that it has in its possession practically all the essential facts that in any way bear upon the subject-matter of its inquiry. The Commission was wholly without compulsory power to compel the attendance of witnesses and without funds to remunerate them, but so general was the public cooperation in the matter that these limitations were not serious.

CHAPTER II.

THE VALENCIA AND HER OWNERS.

The passenger steamer *Valencia*, owned by the Pacific Coast Company, was built in 1882 by Cramps in Philadelphia. She was registered as of the port of New York, but for many years had engaged exclusively in the Pacific coast trade. Her allowed route was the Pacific Ocean, coast, and Bering Sea. She was licensed to carry 286 passengers. Master, Oscar M. Johnson. Her last annual inspection was on April 27, 1905, at Seattle. In November, 1905, she was reinspected, and on January 3, 1906, she was again specially reinspected at San Francisco.

Though owned by the Pacific Coast Company, she was operated by a subsidiary corporation thereof, the Pacific Coast Steamship Company, as were all the fleet controlled by the said Pacific Coast Company.

The Pacific Coast Company.—This is the parent company and was organized in New Jersey in 1898. As testified to by the manager of the company, its capitalization is $1,000,000 first preferred stock, $5,000,000 second preferred stock, $7,000,000 common stock, and $5,000,000 in bonds. The said company owned at the time of the disaster all the stock and bonds in certain subsidiary companies, as follows: Pacific Coast Steamship Company, Pacific Coast Railway Company, and the Columbia and Puget Sound Railway Company; also various coal mines, wharves, real estate, lumber yards, etc., situated in Seattle, central California, Juneau, Skagway, and elsewhere. The various vessels comprising the entire fleet of the Pacific Coast Company and its constituent companies were all operated by the Pacific Coast Steamship Company as agent. The said parent company has paid dividends since 1900, at first 4 per cent, then 5 per cent, and of late years 6 per cent.

The Pacific Coast Steamship Company.—This is a California corporation with capital stock of $2,000,000, owned by the Pacific Coast Company since 1898. It pays over its entire surplus to the Pacific Coast Company as dividends and has earned a surplus since 1897 or 1898. J. C. Ford is president of said company and W. E. Pearce its manager.

The entire fleet thus controlled by the Pacific Coast Company, but operated by the Pacific Coast Steamship Company, is composed of about twenty vessels, engaged in freight and passenger business along the coast from southern California to points in Alaska. About two-thirds of the entire business of their coast traffic is in freight and the other third in passenger business. A regular line of steamers is run by the company between San Francisco, Victoria, and Seattle. The *Valencia* was not one of the steamers regularly engaged on this run, but had been recently placed on the run from San Francisco to Seattle to take the place of one of the regular vessels, the *Puebla*, laid up for repairs, and had just made one round trip thereon previous to the wreck.

DESCRIPTION OF VESSEL.

The *Valencia* was an iron, single-screw, steam-steering, steam vessel; length 252 feet, beam 34 feet, draft 19 feet without load. She had 3 cargo holds, 4 water-tight metal bulkheads, 2 boilers, with 6 furnaces altogether, and was allowed a steam pressure of 100 pounds. She was equipped with 6 lifeboats and 1 working boat, with a total carrying capacity of 181 persons (each lifeboat being swung on davits), and 3 life rafts, with a total carrying capacity of 44 persons. Two of these rafts were of tule, a buoyant Californian reed. She had 368 life-preservers, 315 of which were of tule and the rest of cork; a Lyle line-firing gun of the standard pattern, with 1,500 feet of line; 4 anchors, with 90 fathoms of chain for each, and was otherwise equipped as the law and regulations required. The vessel was valued at about $175,000, exclusive of cargo.

She had three decks—a saloon deck, mostly open to the weather; below that the main deck, and below that the lower deck. Imposed upon the saloon deck were two series of cabins, forming houses. On top of the after series of cabins, known as the "after-house," was a hurricane deck, and on top of the forward series of cabins a so-called "fiddler's deck." The lifeboats in question were carried three on each side, the four forward ones on a level with the fiddler's deck and the two rear ones on top of the after-house on the hurricane deck. The life rafts were also on the said hurricane deck, as was the working boat. The boats were numbered as follows: Nos. 1, 3, 5, and 7 were on the starboard side, counting from forward; Nos. 2, 4, and 6 were on the port side, counting from forward; No. 7 was the working boat, which was carried on the starboard side near No. 5.

The pilot house was imposed on the saloon deck at the front of

the forward series of cabins. Just aft of the pilot house, on a level with its roof, was the bridge, and just aft of the bridge, and on the same level, was the chart house, the bridge being about 90 to 100 feet from the bow.

The speed of the vessel was about 11 knots.

She carried on this trip 1 master, 1 first officer, 3 mates, 4 engineers, and a crew as follows: In the deck department, 1 boatswain, 1 carpenter, 4 quartermasters, 8 seamen, 1 watchman, and 1 boy, making, inclusive of the 5 deck officers, 21; in the engineer's department, 6 firemen, 3 oilers, and 3 coal passers, making, inclusive of the 4 engineer officers, 16; in the steward's department, 3 stewards, 1 stewardess, 4 cooks, 2 pantrymen, 1 barkeeper, 1 porter, 10 waiters, and 3 messmen, making a total of 25, and in the purser's department, 1 purser and 2 freight clerks, making a total of 3. A total crew list of 65.

Inasmuch as the passenger list for this trip is not entirely accurate, and the bodies of many of the victims were never found, and many of those found were incapable of identification, an exact enumeration of the personnel is not possible. The figures given below are, however, substantially correct and can not differ by more than two or three from the actual facts.

When the *Valencia* left San Francisco on the trip on which she was wrecked, she carried 46 first-class passengers and 62 second-class passengers. It appears that there were on the vessel 17 women in all, and a few children.

Of the total officers and crew of 65, 40 were lost and 25 saved. Of the total passenger list of 108, 96 were lost and 12 saved. The ratio of passengers lost to number of passengers was therefore 88 per cent, and of crew lost to number of crew 61 per cent.

In all, of the total ship's company of 173, 136 were lost (a percentage of 78) and 37 saved. All the women and children perished.

CHAPTER III.

BRIEF DESCRIPTION OF VOYAGE.

The *Valencia* left her dock at San Francisco at 11.20 a. m. Saturday, January 20, 1906, bound for Victoria, B. C., and Seattle. She proceeded up the coast on her usual route, keeping a course generally parallel to the line of the coast and within from 5 to 20 miles thereof, at various points, intending, when she reached Cape Flattery, to turn in around said cape to Puget Sound and proceed down that Sound to her point of destination. Cape Flattery, where she would have made the turn to the east, is about 667 miles from the entrance to the Golden Gate and San Francisco Harbor. Leaving San Francisco at the time she did, she would, in the ordinary course of events, have reached Cape Flattery at the entrance to the Straits some time within a few hours before or after midnight Monday, the third day.

She proceeded up the coast without especial incident, and early Sunday morning passed Cape Mendocino, about 190 miles north of San Francisco, which cape and the light thereon were the last land and light that were clearly seen by the *Valencia* until she went ashore. From that point the weather was hazy, and neither by night nor day did she see any lights thereafter or hear any fog signals.

Keeping her course almost entirely by compass and dead reckoning by the log, she failed to locate correctly her position in relation to Cape Flattery, missed the entrance to the Straits and Puget Sound, and went ashore at about 11.50 p. m. Monday, January 22, on the southwest coast of Vancouver Island. It appeared that she first struck a rock or ledge a few hundred yards offshore, where she hung for a few minutes, and during these few minutes the vessel turned upon this rock as a pivot, and then, coming off, drifted or was driven inshore so that in her final berth she lay at substantially right angles to the shore line, with her bow heading out to sea and her stern not over a hundred yards from the cliff which formed the shore line. She remained in that position with life on board her until Wednesday noon or 1 o'clock p. m., January 24, breaking up gradually up to that time, and then her upper works went to pieces completely, so as to be wholly submerged except for her two masts and the tops of her boilers, and so as to be

entirely untenable for human life, except for a few people in the rigging. During this period, from Monday night to Wednesday noon, various attempts were made, both by the ship's company and by outside parties, to rescue those on board, as will later be set forth in detail.

The wind was variable during her voyage, but was of considerable strength from the southeast when she struck and for two days thereafter, and the sea was fairly heavy. The weather was cold and wet. The coast line where the *Valencia* lay is substantially a continuous rock cliff, rising almost sheer from the water, about 100 feet in height, covered with trees and beaten by a very heavy surf. The exact location was about midway between Cape Beale, 9½ miles to the west, and Carmanah Light, 12 miles to the east, these being the two nearest lights and the nearest inhabited places except the small Indian village Clo-oose.

FIRST PERIOD—DETAILED DESCRIPTION OF NAVIGATION OF THE VESSEL.

The details of the navigation of the vessel from the time she left San Francisco to the time she struck have been gathered by the Commission mainly from the testimony of Mr. Peterson, the second officer of the *Valencia*, all the log books having been lost and Mr. Peterson being the only surviving deck officer. His testimony as to soundings was corroborated substantially by the four seamen who took the soundings, and so far as it is possible to check his testimony as to distances and courses it appears to be exceptionally accurate. Mr. Peterson had made this trip something over a hundred times.

The facts relating to the navigation as thus gathered are as follows: From San Francisco to Cape Mendocino the trip was made on the usual course and mostly in sight of land, the weather being fairly clear. Cape Mendocino was reached about half past 5 Sunday morning and was passed at a distance of 10 miles offshore. This cape forms a point where the regular coasting course turns, and it is usual for vessels making this trip to lay a course substantially without variation from this point nearly to Umatilla Light-ship, which is only 14 miles south of the entrance to Puget Sound and is distant from Cape Mendocino about 463 miles. Having thus passed Cape Mendocino the *Valencia* laid a course substantially north 20° west, magnetic, and maintained this course until the following night, Monday, 9 p. m. Mr. Peterson testified that the course of north 18° west actually indicated by the ship's compass was equivalent to a

real compass course of north 20° west, showing a westerly deviation of 2° in the *Valencia's* compass. From Cape Mendocino until the vessel struck no land or lights were seen nor any fog signals heard except the signals blown by the vessel herself.

An entry was made in the log book by the captain that Cape Blanco had been passed at 5.20 p. m. Sunday, log showing 335 miles from Golden Gate, but Mr. Peterson was of the opinion that this entry was largely conjectural, as he did not find that anyone had actually seen Cape Blanco. On Sunday afternoon about 3 o'clock, before passing Cape Blanco, the wind, which had been from the north, had become a strong breeze from the southeast, and was maintained in this direction during the rest of the voyage. Although no "point of departure" had been gained north of Cape Mendocino, which was seen early Sunday morning, and no land or lights had been observed, the captain did not begin soundings until 6 o'clock Monday evening, and from that time and until half past 9 that evening soundings were taken every half hour, but no bottom was found, and the records simply show that at each cast 240 fathoms of wire had been paid out. This would indicate, at the speed the vessel was going and allowing for the slant of the wire, that she was in at least from 80 to 100 fathoms of water.

At 9 p. m. on Monday the captain evidently felt that he should be nearing the Umatilla Light-ship. It is the usual custom of navigators on this route to pick up this light-ship, either by sight or by soundings, and use that point as a point of departure for Cape Flattery, which is 14 miles farther north. It seems probable that Captain Johnson was estimating his position by the points where he thought the vessel ought to be at given times in her schedule. At 9 o'clock Monday night the log showed that the vessel had run 652 miles, which would have brought her, if not influenced by winds or current, substantially opposite Umatilla Light-ship; but for some reason, wholly unexplained, Captain Johnson was of the opinion, as he stated to Mr. Peterson, that the log was "overrunning"—that is, that the vessel was not going as fast as the log indicated.

His phrase was that "the log overruns 6 per cent." In other words, if the log showed on Monday at 9 p. m. a distance of 652 miles he thought it was in excess by 40 miles and the vessel had actually covered only 612 miles over the ground, a distance which would have placed the vessel about 40 miles south of Umatilla Light-ship at 9 o'clock Monday night. As near as can be gathered this was the belief on which Captain Johnson acted, inasmuch as at that time he turned in eastward toward the coast, and it is, as a matter

of fact, the custom of masters, when they are unable to see the land or lights on this run, to endeavor to pick up a peculiar line of soundings which extend about 40 miles south of Umatilla Light-ship and which, if gotten, indicate absolutely the position of the vessel, as such soundings can not be obtained anywhere else on that run.

It should be stated at this point that Captain Johnson's assumption that the log had overrun was a fatally mistaken one, and that on the other hand, as a matter of fact, the log probably underran, and while it showed at 9 o'clock Monday evening a distance run of 652 miles the strong current toward the northward which prevails at this season of the year, and which of course was not registered by the log, had given additional speed to the vessel, and instead of being, at 9 o'clock, 40 miles south of Umatilla, as the captain thought, she was probably at least opposite to or north of that point.

Acting, however, on his aforesaid belief, Captain Johnson, at 9 o'clock Monday evening; turned eastward toward the coast, changing his course from north 20° west to north one-half east and sounding as he went, in order to pick up the shore. These courses are "magnetic," as are all others given herein. It will be remembered that the last soundings which he got previous to 9 o'clock gave no bottom. At 9.30 o'clock, while still maintaining a course of north one-half east, he got a sounding with the tubes (which gives an absolutely accurate depth) of 80 fathoms. The next sounding, at 10 o'clock, was 60 fathoms. At this point he again changed his course very slightly toward the westward and made a course of north three-quarters west. As Mr. Peterson says, this is the usual course taken from Umatilla Light to Cape Flattery Light, which marks the entrance to the Sound. It seems, therefore, that the only explanation for this last change in course, north three-quarters west, is that Captain Johnson assumed that at 10 o'clock he was somewhere near Umatilla Light-ship.

Proceeding on the last course, at 10.30 p. m. he got a sounding of 56 to 60 fathoms; at 10.45, 80 fathoms; at 11, 60 fathoms; at 11.15, 40 fathoms, and at 11.35, 30 fathoms, all of these being a character of soundings that should have put him intensely on his guard, as they were not characteristic of the run from Umatilla to Cape Flattery. Evidently Captain Johnson felt this, for at 11.35 he again changed his course sharply toward the west and away from the coast, taking a course of north 35° west. A sounding at 11.45 gave 24 fathoms. This change in course was taken too late,

however, as within ten or fifteen minutes Mr. Peterson, who was on the bridge, saw a dark object ahead, and both he and the captain ordered the wheel hard to starboard, throwing the vessel's head to the west, and within two or three minutes thereafter she struck the rock.

It is practically impossible to lay out accurately the course of the *Valencia* upon the chart. We have fairly reliable evidence as to compass courses and soundings and log readings, but both the compass courses and the log readings, especially the latter, might be and doubtless were invalidated by the presence of a strong current toward the northward from an unknown distance down the coast, coupled with a strong southeast wind, the sea striking the vessel on its starboard quarter and driving her forward and somewhat westward out of her course, and finally, after passing Cape Flattery and when off the mouth of the Straits, by the existence of additional strong currents issuing from the mouth of the Straits and running along westward and northward parallel with the shore of Vancouver Island.

The pilot chart of the North Pacific Ocean for January, 1906, shows currents running northward close along the coast from Cape Blanco over the entire course of the *Valencia* of from 1 to 3 knots an hour. No such chart was on board the *Valencia*, nor does it appear that Captain Johnson or any of his officers made any allowance for such current. This failure to allow for this so-called "inshore current" proceeding northward is the most unexplainable fact encountered by the Commission. It appears that most masters are perfectly well aware of the existence of this current under normal conditions in the winter, and that while this current is erratic and occasionally ceases entirely, and sometimes is even reversed and proceeds southward, nevertheless its average course is northward and of considerable strength, and its direction and force is sufficiently well known so that most masters are on their guard against it. It is very hard to say, therefore, how Captain Johnson could have assumed that his log was overrunning 6 per cent. It is obvious that if the vessel was in a current proceeding in the same direction as the course of the vessel the log would not "overrun," but would "underrun," i. e., would fail to register the entire progress of the vessel over the ground, as the log could only register the progress of the vessel through the water, and the water itself, in the shape of this inshore current, was proceeding northward.

Whatever may be the explanation for Captain Johnson's mistake, however, the fact that he made this mistake in regard to the current

is the fundamental cause of the disaster, as it clearly appears that when the vessel struck she was at least 30 miles farther advanced to the northward than Captain Johnson supposed she was, and this discrepancy was almost certainly due to his failure to allow for the current and also for the following wind.

The steamer *Edith*, coming up substantially the same course a few hours later than the *Valencia* on the same day, had a quite similar experience with an unusual northward current, and very nearly ran ashore within a short distance of the place where the *Valencia* struck. The difference in the results to the two vessels, one of which was wrecked and the other saved, was due to the action of the master of the *Edith*, who, when he found he was out of his course and was not certain where he was, turned sharply out to sea and cruised about until he was able to locate his position.

Such action Captain Johnson failed to take, and upon his improper navigation must rest the primary responsibility for the disaster.

Only one explanation has occurred to the Commission for the failure of Captain Johnson to allow for the northward set of the current. It appears that while this current is northward in the winter these conditions are more or less reversed in the summer, and the current either becomes of no importance or actually turns toward the southward under the influence of a different class of winds. Captain Johnson's experience on this particular run commenced substantially in May, 1905, so that he had had more experience up to the time of the wreck with the summer conditions than with the winter conditions. He may have confused the two and may have been calculating on the current going southward, as would be the case in summer. It certainly appears that he had some such idea fixed in his mind to such an extent that he even disregarded the evidence of his own log when it was plain at certain points that the log was not overrunning. For instance, the actual distance from the entrance of San Francisco Harbor to Cape Mendocino is 189 miles, and the log showed exactly this distance, 189, when they passed Cape Mendocino. Furthermore, it also appears that there was an entry in the log book that they had passed Cape Blanco, and the log at that time showed 335 miles, when the actual distance is 333, and this was at a time when the wind was against them. Both of these facts showed clearly that the log at the time they passed Cape Blanco was not overrunning at all, but was substantially correct.

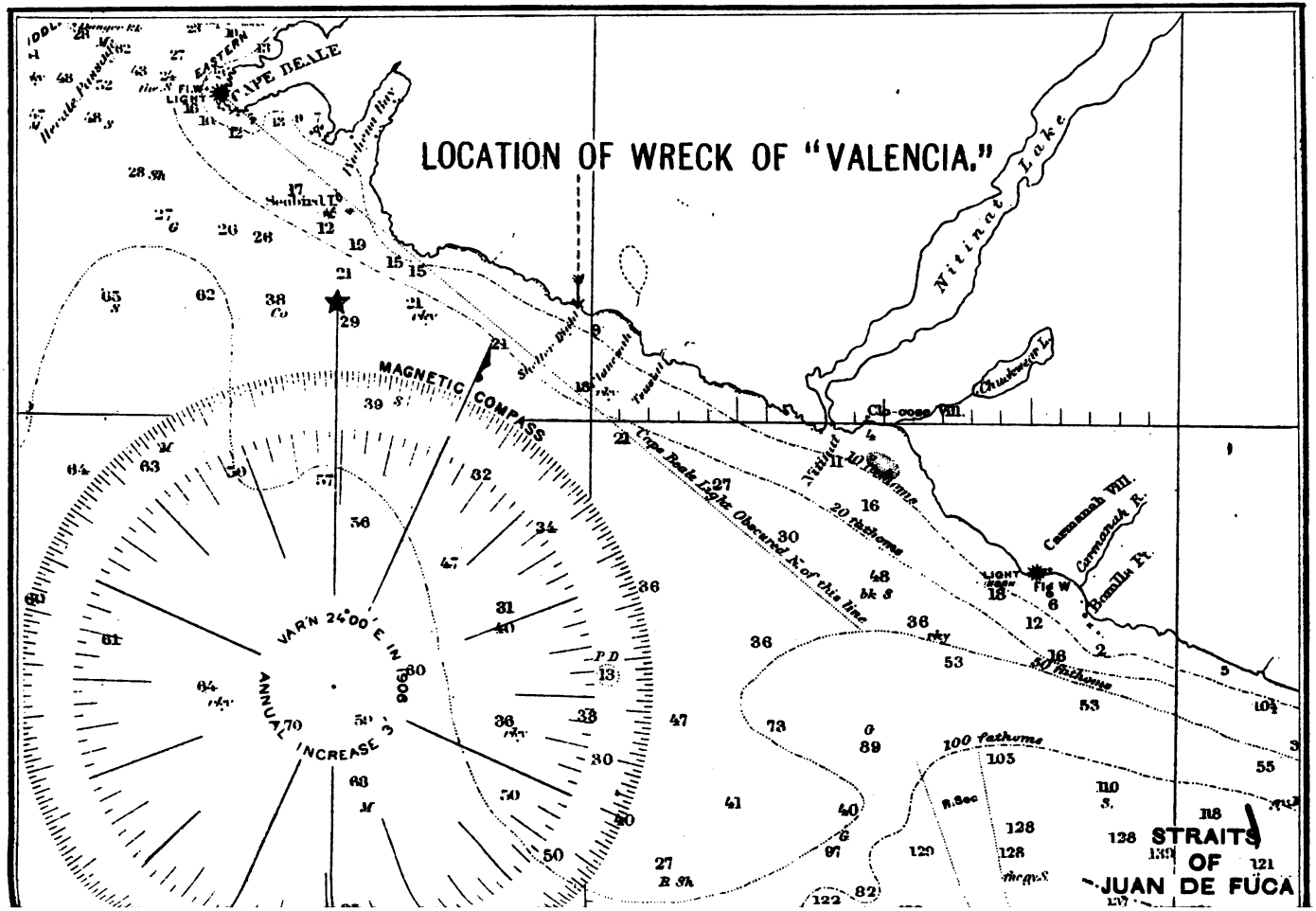
The supposed speed of the *Valencia* was about 11 knots an hour, but it appears from various facts that during this trip she was

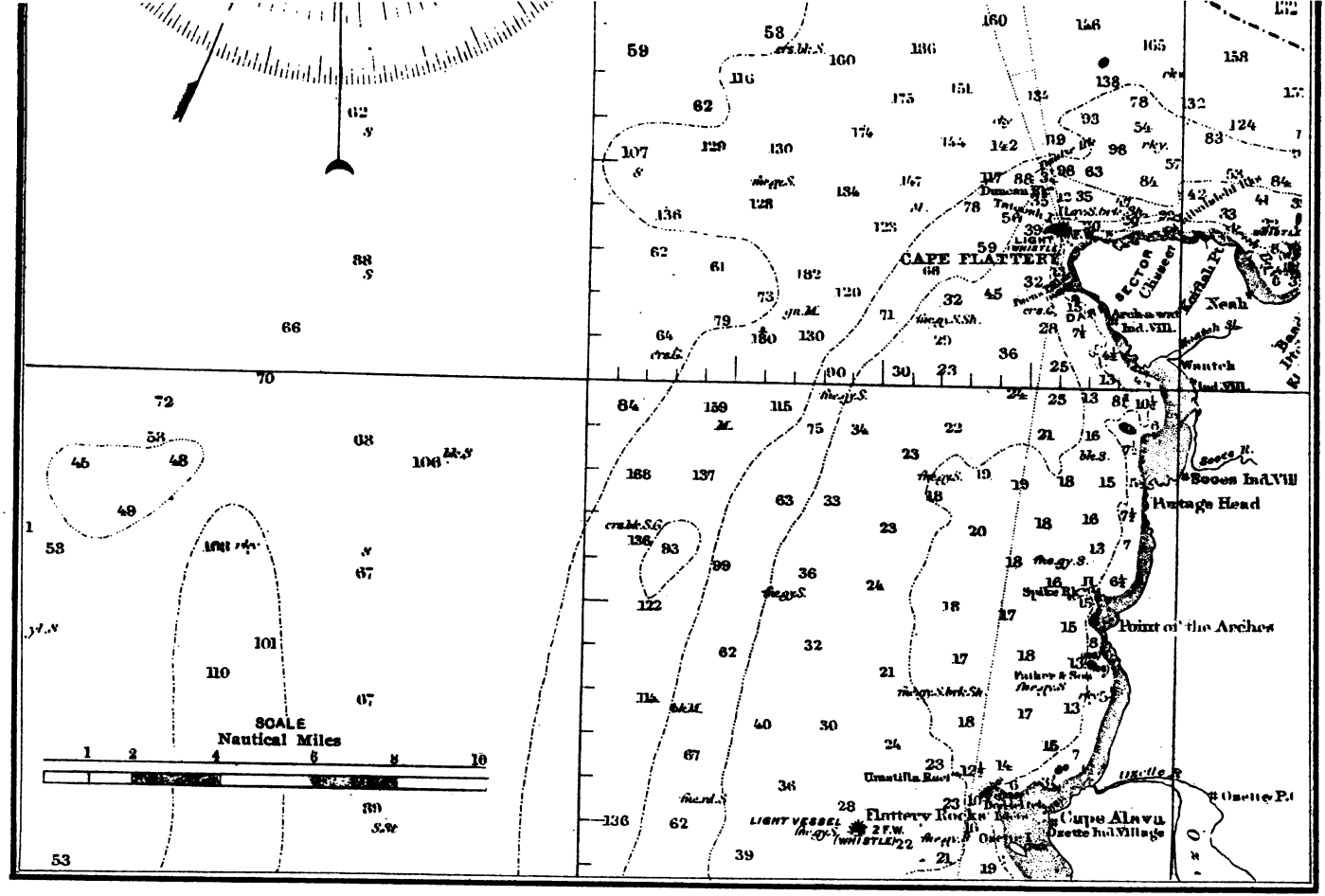
making more than that. Her run from the Golden Gate to Cape Mendocino and Cape Blanco was made at an average rate of about 11 ⅓ knots an hour. Her average rate for the entire run till the time she struck was at the rate of 11 ½ knots an hour, and in this period must be included a considerable length of time when she was running at half speed or less, so that when going at full speed that trip it is safe to say that she was making over the ground at least 12 knots an hour.

It seems probable from the course made by Captain Johnson that he was, however, actually calculating on an overrun of the log of about 6 per cent. Both Peterson and the fourth mate apparently had doubts about this assumption, and Peterson suggested to the captain that possibly the log was not overrunning, but was assured that it was. Evidently, however, nobody on the vessel supposed they were as far north as they were, because it was not until at least a day after they had struck the shore of Vancouver Island that anyone (and then only those who got ashore) knew that they were on Vancouver Island, and the impression of the captain and the officers and crew was that they were somewhere on the American shore south of Cape Flattery, and their actions after they struck all bear out this impression.

It appears from the evidence that there was a lookout, or station man, on duty in the bow of the ship at this time. This man's testimony can not be had, as he is dead. Mr. Peterson, however, says that this lookout gave no warning of the approach of land and did not call out at all, and this was probably the fact. The place where the lookout stood was about 100 feet forward of the bridge, where the captain and the first officer were. It would be hard to distinguish the lookout from the bridge on a night as dark as that on which the *Valencia* struck. Mr. Peterson thinks he saw him moving about, but is not sure. It is certainly singular that this lookout, whose sole business it was to keep watch ahead, should not have reported land ahead. It appears, however, that through a wholly improper arrangement of watches this lookout had been on duty since 6 o'clock that evening, and had been there nearly six hours at the time the vessel struck. He would have gone off duty at 12 o'clock and been relieved by the other station man.

This lookout is said to have been a good man—young, active, and faithful—but the Commission is firmly of the opinion that no man, however good, should be kept on lookout duty for six hours continuously, especially under circumstances of dangerous navigation. A


LOCATION OF WRECK OF "VALENCIA."
CAPE BEALE
EASTERN
LIGHT
Nitinat Lake
Chuckwear L.
Clo-oose Vill.
Carmanah Vill.
Carmanah R.
Bonilla Pt.
Cape Beale Light Obscured N. of this line
10 fathoms
20 fathoms
50 fathoms
100 fathoms
MAGNETIC COMPASS
VAR'N 24°00' E IN 1906
ANNUAL INCREASE 3'
STRAITS OF JUAN DE FUCA



SECTION OF COAST AND GEODETIC SURVEY CHART SHOWING LOCATION OF WRECK OF VALENCIA AND ENTRANCE TO STRAITS.

THE HORRIS PETERS CO., WASHINGTON, D. C.

man under such continued strain might easily fall asleep or half asleep so as to be useless as a lookout, and even if he were not asleep it is a matter of common knowledge that such long continued attention will dull the faculties so that a man would be much less quick and attentive than a fresh man. The Commission, therefore, is obliged to express its strong disapproval of any system which requires a man to maintain lookout duty for any such period of time as six hours, and it is believed that such system in this case was responsible for the fact that land was not reported by the lookout.

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CHAPTER IV.

SECOND PERIOD—AFTER THE VESSEL STRUCK AND BEFORE THE ARRIVAL OF THE RESCUE FLEET.

As soon as the vessel struck, or within a few minutes thereafter, soundings were taken in the bilges of the middle compartment which showed, first 1 foot of water, then 2 feet, and then 6 feet, all within a period of five or six minutes. These soundings were reported to the captain, who was still on the bridge, and he evidently came to the conclusion that the vessel would sink and must be beached, and he therefore informed Peterson that he was going to beach her. The engines were started full speed astern and the vessel was beached stern foremost, as previously stated.

The exact location where the vessel struck is at a point substantially 22 miles from Cape Flattery, northwest three-quarters west, magnetic, 12 miles northwest along the coast from Carmanah Light and 9½ miles southeast along the coast from Cape Beale Light. The location of the wreck is indicated on Plate I. The coast at this point is precipitous and rocky, as appears by Plate II, and the interior in this vicinity appears to be wholly uninhabited, nor is there any method of communication or travel in either direction, except a telegraph and telephone line strung on trees running from Cape Beale on the west to Carmanah Light on the east and connected at occasional intervals with small huts known as "linemen's huts," apparently for the convenience of the linemen whose duty it is to keep this line in order. No trail accompanied the telegraph wire, except so far as its direction was marked by occasional blazes on the trees. The forest and vegetation is extremely dense, and in places almost impenetrable except by chopping a path. A number of small streams and rivers go into the sea along this strip of coast, and these streams are often impassable in rainy weather. Only in a very few places is it possible to proceed along the shore in front of the line of bluffs, and then only at low water. Much of the travel along this strip of coast must be inland, back of this line of bluffs.

Taken as a whole, it would be hard to find a place so comparatively near to civilization and yet practically so inaccessible and isolated as the place where the *Valencia* went ashore.

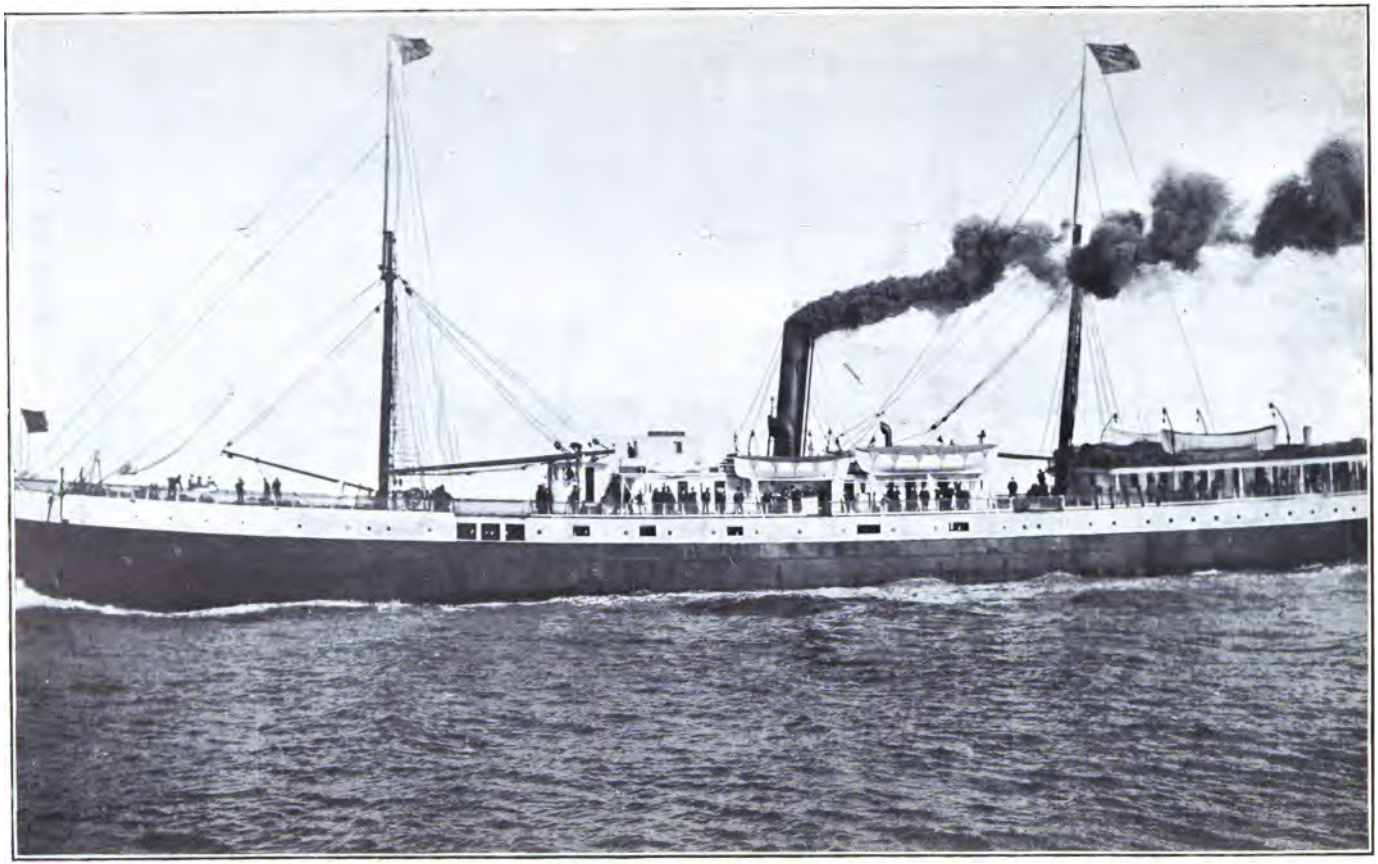

PLATE I.—STEAMER "VALENCIA."

PLATE II.—WRECK OF "VALENCIA" AT LOW TIDE. FEBRUARY 2, 1906.

Captain Johnson, however, was correct in his belief that the vessel must be beached, as the filling of any one of the three large cargo holds would probably have served to sink her. His next order was to lower the boats to the saloon rail and lash them there. This order was given at substantially the same time he decided to beach the vessel. Based upon this order there then followed a complete and disastrous failure in the use of the boats. It appears that for some reason no boat drill had been held on board the *Valencia* this trip, it being apparently the intention of the captain to have his drill after getting into Puget Sound. Out of the 65 members of the officers and crew only 32 had been on the *Valencia* on the previous trip, and while a fire drill had been held on the previous trip only two of her six lifeboats had been swung out and lowered in that drill, with the result that such drill was incomplete both as to the trying of the boats and tackle and in giving practice to only two out of six boat crews. There was, therefore, only an incomplete and partial drill on the previous trip of the *Valencia* and no drill at all on the trip when she was wrecked. Many of the crew did not know to which boat they were assigned.

The natural consequences followed when the captain gave the order to lower the boats. The exact occurrences are difficult to ascertain, inasmuch as the electric lights went out shortly after the vessel struck, and in the confusion, darkness, wind, and rain the surviving witnesses naturally were not clear as to exactly where they were or what happened. In general, however, certain facts appear. The order of the captain was incompletely carried out and he himself did not see to its execution, and the first officer, who was with him at the time, also failed to see to its execution. More than half of the seamen of the crew, men best fitted to handle the boats, for some reason stayed below awaiting orders until several of the boats had been lowered or capsized.

Meantime others of the crew—firemen, waiters, etc.—with the aid of passengers lowered the boats to the saloon rail (except No. 5, which was not swung out at all that night), but failed to lash the boats there, and then when the passengers got into the boats, through misunderstanding of orders, failure of tackle, or possibly the cutting of the falls by excited persons, three of the boats were cockbilled; that is, one end was dropped suddenly before the other, and all the passengers in these boats were spilled into the sea and only 1 rescued. Two other boats were successfully lowered and launched, but having only one or two of the crew in each of them they were

practically helpless and were quickly turned broadside to the waves and capsized, and out of probably 20 or 30 occupants only 9 got ashore from these two boats.

There is also some evidence to the effect that a third boat was successfully launched at this time, but if so she probably capsized later, as no one in her survived and her fate is unknown. One raft also slid overboard.

The net result of the handling of the boats on the night of the disaster was that not over a dozen people got ashore alive. Probably from 40 to 60 were drowned in the various accidents to the boats and only one boat was left on the vessel. It seems fairly clear from the experience the next morning, when this last remaining boat went out successfully through the surf with comparatively little difficulty, that Mr. Peterson is correct when he says that if the boats had not been launched at all until the next morning they then could have gone out successfully and saved each a reasonable boat load of passengers. This terrible failure in the use of the boat equipment was due, in part, to lack of proper drill and in part to the order of the captain, by which the boats were lowered to the rail where the passengers could get into them without proper crews at the boats to see that the boats were protected from the inrush of passengers and that they were properly launched and manned.

It is probable that after the failure of the boats, all of which must have occurred inside of half an hour from the time the vessel struck, there were left on board about 90 to 110 persons. The vessel was substantially in darkness after the electric lights went out, except for two or three small hand lamps. The passengers at first congregated mainly in the dining saloon and were there given a little food, though most of the supplies had by that time become submerged and were inaccessible in the lower part of the vessel. By the time the morning of Tuesday came, however, the water had begun to come into this saloon, and the passengers went either on top of the hurricane deck or into the staterooms on the saloon deck; evidently the majority of them went on the hurricane deck.

Throughout the entire night there appears to have been little or no panic on the part of the passengers after the first natural alarm when the vessel struck, and even this first alarm does not seem to have taken the shape of an unreasoning or uncontrollable panic. It is true that many of the passengers hastened to get into the boats, but this was only natural, inasmuch as the boats had been lowered

to the saloon rail apparently for that purpose and there was no one there to restrain them. They seem to have been reasonable and comparatively cool, and could have been easily controlled by efficient officers and crew, trained under proper boat drills.

Several times during the night rockets and flares were set off by way of distress signals and to enable the officers to get a view of the coast line, which was very indistinct. In the course of some of these operations the captain had his right hand broken and practically disabled by an exploding rocket.

Along toward Tuesday morning it was evident that the vessel was beginning to break up. The hull remained comparatively intact, but the forward house, to wit, the pilot house, chart house, and bridge, began to go, and the sea coming in over the bow was gradually eating away the upper works of the vessel. Early Tuesday morning, probably between 8 and 9 o'clock, the captain called for a volunteer crew to take the last remaining boat and make an attempt to follow up the coast and land a crew from the boat so as to come back along the shore and take a line to be shot from the vessel.

A crew of seven volunteered in charge of McCarthy, the boatswain, and No. 5 boat was lowered on the starboard side of the vessel, made its way out through the breakers, and proceeded westward along the shore looking for a place on which to land. The testimony of those who watched this boat go out, and also of those in the boat, seems to indicate that comparatively little difficulty was encountered in getting away. They shipped very little water, not enough to require bailing, and while hard pulling was necessary they did not seem to have been in any serious danger at any time, and they crossed the line of breakers possibly 100 yards out beyond the bow of the vessel and then turned and proceeded nearly in the trough of the sea westward and with very little trouble up the coast, occasionally having to turn the bow of the boat to an exceptionally large incoming sea.

After the breakers were passed the boatswain was able to steer with the rudder. This boat proceeded along the shore without finding a place to land until they reached what is known as Seabird Rocks, near the entrance to Pachena Bay, and finally made a landing on the westward shore of Pachena Bay near its mouth on a short strip of beach, without losing any life, and about 7 miles northwest of the wreck. They reached this point about 12 or 1 o'clock Tuesday afternoon.

Up to this point apparently every one on the vessel had believed that she was on the Washington coast south of Cape Flattery. But this volunteer crew after landing began looking for a trail, and shortly saw on the beach a sign reading "Three miles to Cape Beale." This was their first definite knowledge that they were on the shore of Vancouver Island. They found this trail leading toward Cape Beale and decided to follow it westward and not to attempt to go back to the wreck overland, because there appeared to be no feasible way of getting back, the telegraph line running back through the impenetrable woods, and the way along shore being barred by high cliffs. They therefore proceeded in the other direction westward and arrived at Cape Beale light-house at 3 o'clock Tuesday afternoon, and there informed the keeper about the wreck and its location and condition as near as they could, and this information was at once telegraphed to Bamfield Creek, a few miles farther west. The news of the wreck had already been received at Bamfield through the efforts of the other party described hereafter.

Meantime, to return to the events on the *Valencia* on Monday night, it will be remembered that two boats succeeded in getting away within a few moments after the vessel struck, but subsequently capsized, and 9 of the occupants reached the shore in safety. After being thrown upon the rocks by the sea, the members of this shore party managed to crawl up out of the reach of the water and spent the night on the rocks at a place probably not over 500 yards westward along the shore from the *Valencia*, but somewhat around a little point. The shore at this place was so precipitous and rocky that they did not venture to attempt to ascend it in the darkness.

As soon as it began to grow light a way was found up the side of the cliff, and the party, after considerable difficulty, reached the top and there came across the telegraph line, already mentioned, running from Cape Beale to Carmanah. Acting still under the impression that this was the American shore and that they were not far from Cape Flattery, this party decided to turn to the west and reach Cape Flattery, as they supposed, and summon assistance.

When this shore party came to this decision and turned to the west it must be said that by far the best chance for rescuing the remaining survivors on the *Valencia* vanished. This party when it came to this decision was not more than half a mile, and probably much less, from the top of the cliff directly back of the stern of the *Valencia*. The distance between the stern of the *Valencia* and the top of this cliff was certainly not over 250 feet. As it subsequently appeared, it was easily possible to fire a line across this gap from the

vessel to the top of the cliff. Had this shore party thought of this possibility and turned in the other direction, toward the east, and had come out on the top of the cliff back of the *Valencia*, they would unquestionably have been there to receive the line which, as a matter of fact, was later fired there from the vessel; they would have had 9 men to pull ashore the line and attached rope and to make it fast, and it is substantially certain that a shore connection would thus have been established, so that by means of the breeches buoy, which was ready on the *Valencia*, all those surviving on the wreck could have been drawn ashore in safety.

Almost incredible as it may seem, this small space of 250 feet made the difference between life and death for the remaining 100 persons on board the *Valencia*, and this space would undoubtedly have been bridged had there been anybody to take the line on top of the cliff.

The Commission does not desire to attribute blame to this shore party for its failure to grasp this opportunity. They had been beaten through the surf, some of them considerably injured, had spent the night in great discomfort, without food or shelter, and were none of them in a condition to coolly estimate the chances and to consider expedients which occur to persons in normal conditions; but inasmuch as throughout the history of this disaster blame has perhaps at times been hastily imputed to various individuals and officials for failure to think of exactly the right thing at the right time this unfortunate oversight is also brought out, not by way of criticism, but to show the possibilities of perfectly well meant but mistaken action.

Turning therefore to the west, this shore party proceeded with great difficulty along the telegraph wire, finding no trail except a few infrequent blazes on the trees, and somewhere about 1 or 2 o'clock in the afternoon, after crossing a difficult stream—the Darling River—came to a lineman's hut on the western bank of that river, into which the telegraph wire ran, and here, while in search of food, a telephone receiver and transmitter was discovered, was connected with the wires, and after repeated failure communication was established with the light-house keeper at Carmanah a few moments before the arrival at Cape Beale of the volunteer crew under McCarthy. The information reaching Carmanah was telegraphed to Bamfield Creek, and from there by cable to Victoria, thus giving to the outside world the first news of the disaster.

Meantime, on the *Valencia*, and in anticipation of a successful landing by the volunteer crew, the Lyle line-firing gun had been placed in position (about 9 o'clock in the morning) on the hurricane

deck, and attempts were made to fire a line ashore. The first attempt was unsuccessful, inasmuch as the line, chafing against the side of its box, broke, and the projectile carried with it only a few feet of line, leaving the rest on board. The second shot was successful, and the line was carried far up over the cliff and back into the woods. This line was a small cord, perhaps a quarter of an inch in thickness, intended for drawing in a larger rope. The larger rope, a new one 5 inches in circumference, had been buckled to the mainmast near the crosstrees and a pulley with a breeches buoy rigged on this rope, the whole to be drawn ashore by means of the Lyle gun line.

But for the reasons set out above the volunteer crew were unable to return. Also the other party, the shore party of 9, failed to come back to the top of the cliff, and the Lyle gun line hung there for two or three hours, and finally, sagging into the water, caught in wreckage and was chafed apart, and when Logan, Daykin, and Martin, coming along the telegraph line from Carmanah, arrived near the wreck on Wednesday, just before it broke up, they came across the inner end of this Lyle gun line, and, following it outward, came out on the brow of the cliff just above the *Valencia* in time to see her finally go to pieces.

Only two lines were fired, it appearing that the vessel had only three projectiles, and, furthermore, it was useless to fire another line ashore unless there was someone there to receive it.

Twice on Tuesday courageous attempts were made, one by a fireman and another by one of the officers, to swim ashore with a line, but both failed, the swimmers being unable to overcome the backwash of the surf, and being greatly impeded and endangered by the wreckage, which was beating about between the vessel and the cliffs, so that they were both ultimately obliged to give up the attempt and were drawn back on board the vessel. Neither of them got more than halfway to the shore. Nothing more of importance for this report occurred on Tuesday except the gradual breaking up of the upper works of the *Valencia*, so that by Tuesday night the passengers were all forced back to the top of the hurricane deck, some going into the rigging. Most, however, remained on top of the hurricane deck, where a rude shelter of tarpaulins was arranged for them, and here all the women were located, while a few of the men stayed down in one of the remaining cabins underneath that deck in the after-house.

The vessel was all the time gradually settling, her frames evidently springing and a general collapse gradually taking place as she worked

on her bed and was pounded by the waves through the night. The wind and rain continued at intervals throughout the night and the next day. She lay in about 5 fathoms at her bow and 3½ at her stern at low tide.

On Wednesday morning the entire company was forced to occupy the hurricane deck or the rigging, as the water was coming into the cabins in the after-house on the saloon deck and all the rest of the upper works as far aft as the after-house, as well as part of the after-house, had been broken away.

About half past 9 Wednesday morning, just as another attempt was about to be made to swim ashore with a line, a vessel was observed by the passengers out to sea. This vessel was the *Queen*, which had come down from Victoria to attempt to rescue the survivors. Thereupon the attempt to swim the line ashore was given up, and after the *Queen* had lain off some mile and a half or 2 miles away for possibly a quarter or half an hour, the two life rafts were launched in the hope of reaching the *Queen*. The first raft had on board only 10 men, most of the people feeling that they would be rescued directly by the *Queen* and not caring to take the risk of going out on the raft. About this time three shots were also fired from the Lyle gun to attract the attention of the *Queen*.

This raft was launched and went out without much difficulty through the surf, some of the occupants rowing, and drifted west in the current and finally landed some time during the night, apparently between 8 o'clock Wednesday night and 1 o'clock Thursday morning, on Turret Island, about 17 miles west along the coast from the wreck, and when this raft finally went ashore only 4 out of the 10 passengers were alive, 2 having gone insane and jumped overboard and 4 others having succumbed to exposure. The survivors were rescued the next day by outside assistance.

Immediately after the launching of this first raft the second raft was launched and remained fastened alongside of the vessel for perhaps ten or fifteen minutes, and the unanimous evidence of many of the survivors is that at least 2 officers and some of the passengers urged the women to go on board this raft, telling them that it was their last chance. This, however, the women all refused to do. It does appear, as a matter of fact, that there was no desperate rush for this raft, and if a number of witnesses are to be believed the women were given all reasonable opportunity to secure places on it. It must be remembered that at this time the steamer *Queen* was in plain sight, and it is highly probable that the women, dreading the chances of death on this apparently frail raft, preferred to remain

on board, hoping to be rescued by boats from the *Queen*. At all events it seems to the Commission highly probable that the women were not willfully deserted, but that they remained on board of their own accord and against the urgings of the officers of the vessel.

When this raft left the side of the vessel it carried its full complement of passengers, 18 men, and it was crowded to about its full limit. This raft was subsequently secured and brought to Seattle, and the Commission made a test of it; and while the Commission managed to get 22 men on it, it was obvious that 18 would crowd it seriously. This raft went out through the breakers without much difficulty, four oars being used and also bits of wreckage for paddles; and while most of the occupants were to some extent in the water as it washed over the raft, they were nevertheless able to row after a fashion, and none of them was at any time washed off, and the experience of this raft and its passengers is one of the strongest evidences that the sea about this time, to wit, half past 9 or 10 o'clock Wednesday morning, was not severe.

It is inconceivable that a raft so heavily loaded, mostly with landsmen and using oars necessarily so close to the water as is the case with a raft, should have been able to proceed without accident and without serious trouble through any formidable line of breakers; and, as a matter of fact, the other witnesses who testified to the severity of the sea on that day recognized, and, in some cases, expressly said that this instance of the coming out of these rafts was a puzzle to them and wholly unintelligible.

The *Queen* at no time saw either of these rafts. The second raft was picked up by the *Topeka*.

CHAPTER V.

THIRD PERIOD—RESCUE FROM OUTSIDE.

Between 3.15 and 3.30 Tuesday afternoon, January 23, a telephone message was received at the Seattle office of the owners, the Pacific Coast Steamship Company, by Mr. J. E. Pharo, assistant to the manager of the company, which message came from Victoria, B. C., and stated that a vessel had gone ashore somewhere on the west coast of Vancouver Island. About five minutes later this information was supplemented by a further message stating that the vessel was the *Valencia*, and that she was ashore somewhere west of Carmanah Light. Captain James B. Patterson, port captain of the company at Seattle, was also in the office when this message was received, and assisted Mr. Pharo in his preparations for rescue.

Knowing that the *Queen*, one of the large passenger steamers of the same company, was shortly due at Victoria, orders were sent at once to Captain Cousins, in charge of this vessel, to land his passengers at Victoria and proceed at once to the scene of the wreck and do whatever he could in the way of rescue.

Mr. Pharo then attempted to secure the services of one or more seagoing tugs, knowing that a light-draft, easily handled vessel would be the most serviceable in the work of rescue from a steamer ashore. But no seagoing tug was, at the time, available in Seattle or at points sufficiently near to be of any use, except one vessel which was under repairs and could not be made ready. The Puget Sound Towboat Company, which operates most of the seagoing tugs in this vicinity, informed Mr. Pharo that they undoubtedly had tugs lying in Neah Bay, which is within 5 miles of Cape Flattery and about 25 miles from the place of the wreck. There are tugs lying in this bay almost continuously, waiting to tow incoming vessels up the Straits. But it then appeared that the Government telegraph line from Neah Bay to Port Angeles, communicating from there with Seattle, was out of order and no communication could be had with Neah Bay, although, as a matter of fact, it seems almost certain that there were at least one and possibly two seagoing tugs lying in the vicinity of Neah Bay, within 25 miles of the wreck, during much of

the time when the rescue operations were going on. This failure of communication was one of the very unfortunate incidents that minimized the chances of rescue.

The *Topeka*, another vessel belonging to the Pacific Coast Steamship Company, was also at this time lying in Seattle Harbor discharging a cargo of dynamite. As soon as news came of the wreck Mr. Pharo also ordered the discharging of this cargo to be rushed, and finding shortly thereafter that it would be impossible to get all of the dynamite out before late at night, he ordered the captain to prepare and proceed to the scene of the wreck without unloading all the cargo, and she left for the wreck about 10 p. m. Tuesday night. Mr. Pharo and Captain Patterson went with her and they took along nurses, a doctor, various medical stores, and 17 extra seamen.

Meantime Captain Cousins, on the *Queen*, pursuant to his orders at Victoria, landed his passengers there, except about 12, and at 5 o'clock Tuesday afternoon started for the scene of the wreck, and arrived off Carmanah Light about 10 o'clock that night. His information when he started from Victoria was that the wreck was 4 miles west of Carmanah Light. Arriving at the light, he practically laid to, drifting or cruising up and down near the mouth of the Straits until daylight next morning and then proceeded westward along the shores of Vancouver Island, speaking Carmanah Light on the way and being informed that the wreck was 18 miles west of Carmanah. He also passed the Canadian vessels *Czar* and *Salvor* near Carmanah Light. Keeping a course within a mile or two of the shore, he observed the wreck about half past 9 in the morning, Wednesday, and laid to at that point, about a mile or mile and a half from the shore. Shortly after he arrived there he observed the *Czar* following him from the eastward and steamed out about a mile to stop this vessel, which was going past under the impression received from Carmanah Light that the *Valencia* was much farther to the westward.

The *Czar* is a small ocean-going tug of the usual type, of Canadian registry, and was apparently at the time of the wreck proceeding westward up the coast of Vancouver on a towage job in the vicinity of Barclay Sound. Upon being informed of the position of the wreck, the *Czar* steamed in toward it to a distance of from three-quarters of a mile to a mile from the shore, the evidence on this point being quite conflicting. Apparently the *Czar* did not stop off the wreck when it reached the nearest point to it, but made

a turn and came back again at once; and there is some evidence that about the time the *Czar* made the turn she shipped considerable water and her master was alarmed thereby. Meantime, the *Salvor*, a wrecking vessel of Canadian registry, had also come up alongside of the *Queen*, and when the *Czar* came out from her trip toward the wreck she first spoke the *Salvor* and then came over to the *Queen*.

Prior to the arrival of the *Czar* on the scene, the men on the *Queen* had observed evidences of life on the wreck. Three puffs of smoke were noted from the afterhouse of the wreck, and with the glasses objects were observed in her rigging and apparently blankets flying from her shrouds. Accordingly, when the *Czar* came out and spoke the *Queen* after her run in toward the wreck, Captain Cousins and others on the *Queen* told the *Czar* that there was life on the wreck. Captain Cousins says that he is not positive that the master of the *Czar* heard him, inasmuch as he (Captain Cousins) was talking with a megaphone, but the master of the *Czar* did not have one. There is a distinct contradiction of evidence between witnesses on the *Queen* and witnesses on the *Czar*, the latter of whom state that they were not informed that there was life on the wreck, and they also affirm that they themselves saw no life on the wreck, that they so stated to the captain of the *Queen*, and that they acted on this belief.

At all events, the *Czar* then terminated the conversation by informing the *Queen* that the *Czar* and *Salvor* were going up the coast westward, and both at once proceeded to do so, leaving the scene of the wreck about 10.15 a. m. The intention of the masters of these boats, the *Czar* and *Salvor*, was to go to Bamfield and there organize a land party to give what assistance was possible by way of a land trail.

Shortly after the departure of the *Czar* and *Salvor* the haze and rain, which had been intermittent up to this time, increased, so that from that time on the *Queen* did not have any sight of the wreck, as she lay 2 or 3 miles off from it. During this entire period, while the *Queen* was lying off the wreck, she made no attempt at rescue and did not lower her boats or rafts. Captain Cousins called in consultation with him shortly after his arrival off the wreck five Canadian and American pilots, whom he had taken on board at Victoria, and they all concurred with him in the belief, first, that the *Queen* had previously gone as far inshore as was safe for her to go, considering the unknown nature of the bottom. The *Queen* drew 21

feet of water at the time and was about 300 feet long, being one of the largest vessels of the Pacific Coast Steamship Company's fleet. Secondly, this conference agreed that it would be wrong to attempt to send lifeboats in to the *Valencia*, as they believed such boats could not be gotten out again against the surf and wind, and that any such attempt would merely mean a further loss of life.

At this point it is only justice to Captain Cousins to say that the Commission denies emphatically the truth of a certain rumor which prevailed shortly after the wreck and which was given wide currency in the public press, to the effect that a half dozen seamen of the United States Navy, who were on board the *Queen*, came to Captain Cousins and volunteered to take a lifeboat to the wreck and that Captain Cousins refused to allow them to do so. Three of this half dozen of seamen were brought up from San Francisco and placed on the stand by the Commission, and they all denied making any such offer, and said that no such offer had been made. This rumor evidently arose from a mistaken understanding of the conversation between passengers and has been the source of much unjust criticism of Captain Cousins. The Commission is thoroughly convinced that no such offer ever took place.

Meantime the *Topeka*, having left Seattle about 10 o'clock the previous night, as already described, came directly down the Straits and arrived alongside of the *Queen* about 11 o'clock Wednesday morning. The *Topeka* was in command of Captain Cann, and, as above stated, had also on board Mr. Pharo, the assistant to the manager of the company, Captain James B. Patterson, port captain of the company at Seattle, and also two marine insurance men. The *Queen* informed the *Topeka* that the wreck was directly astern of the *Queen*, which was at that time lying bow out to sea. She also informed the *Topeka* that there was life on board, and that they had seen three puffs of smoke. Mr. Pharo then ordered the *Queen* to return to Victoria, take on board her passengers, and proceed on her trip toward San Francisco, speaking the *Topeka* again on her way out. Without comment or protest, Captain Cousins obeyed this order and proceeded to Victoria, leaving the *Topeka* off the wreck.

The *Queen* did not give, nor did the *Topeka* ask for, any compass bearings as to the location of the wreck, and it should be remembered that the *Queen*, on account of the haze and thick weather, had not seen the wreck for nearly an hour prior to the arrival of the *Topeka*, and, as a matter of fact, the *Topeka* did not at any time catch sight of the wreck during the rest of that day or while there were any survivors on board it.

Upon the departure of the *Queen* the *Topeka* steamed in slowly, about a mile, till within sight of the coast, and there obtained soundings of about 11 fathoms; and deeming it unwise to go nearer to the coast she proceeded to patrol the coast up and down in search of the wreck, going, apparently, nearly as far northwest as Cape Beale and as far southeast as the wreck, but at no time catching sight of it.

At about noon, while on her westward beat, she sighted one of the two rafts which had left the *Valencia*, being the second raft to leave and having on board 18 people. This raft when sighted was substantially northward of the *Topeka* and probably about 4 miles west of the wreck. When within a few hundred yards of the raft the *Topeka* lowered a boat which towed the raft alongside the steamer, and the survivors were taken on board. Considerable conflict of testimony exists as to whether these survivors were questioned thoroughly as to the location of the wreck and the condition of it. They were naturally in a very much weakened condition themselves and what information they could give was necessarily unsatisfactory, as they themselves had not seen the wreck for several hours, but it does not appear that they were interrogated with the thoroughness that should have been exercised, and many of them were not questioned at all.

The *Topeka* then continued her patrol up and down the coast till about 4 o'clock that afternoon, and as it became dark desisted from the work and went over and spent the night near Neah Bay. The *Topeka* at no time lowered any of her boats or rafts, except on the one occasion when she picked up the life raft from the *Valencia*. It seems probable that the *Topeka* never got very close to the wreck at any time Wednesday. When the *Queen* gave the first information to the *Topeka* that the wreck was directly astern of the *Queen*, the *Queen* at that time had not seen the wreck for nearly an hour and had been lying offshore in a current which runs westward at this point probably from 2 to 3 miles an hour, and therefore, while the wreck had probably been directly astern of the *Queen* when it was last seen, the drift of this current had been such that when the *Topeka* arrived the *Queen* was probably between 1 and 2 miles westward of the wreck on the coast. Captain Cann, of the *Topeka*, admits he "missed it (the wreck) about a mile" when he went toward shore immediately after the *Queen* left. This current here is well known to mariners, but neither the master of the *Queen* nor of the *Topeka* made an allowance for this drift.

Meantime, the wreck had broken up completely as to its upper works somewhere between 12 and 1 o'clock Wednesday afternoon. Mr. Daykin, assistant light-house keeper at Carmanah, and Mr. Logan, lineman, who had been at Carmanah Light when the news of the wreck had been received there from the shore party on Tuesday afternoon, left at once in company with Martin, a trapper, to go to the wreck, but finding the Clanewah River too high to be passable they spent Tuesday night there, some 2 or 3 miles east of the wreck, and proceeded again Wednesday morning along the line of the telegraph wire. While passing on this line back of the bluffs overlooking the wreck they found the broken Lyle gun line which had been fired from the *Valencia* lying across the trail, and following this line outward came out on the bluff over the wreck just in time to observe its final condition, and very shortly after their arrival the last of the upper works collapsed and all the survivors thereon, from 60 to 80 persons, except a few who clung to the rigging, were swept into the water and perished, some of them being drowned and some being beaten to death against the rocks.

All of these persons had on life-preservers, and quite a number were carried out to sea through the breakers and perished there. It is not probable that many survived long in the water when we consider their state of exhaustion following the thirty-six hours' exposure on the wreck and lack of food and water. Messrs. Logan, Daykin, and Martin were wholly unable to aid in any way, as the wreck was inaccessible from the shore and they could not throw a line to her, and when the final catastrophe occurred they were so overcome with the horror of the sight that they left the spot at once and proceeded along the trail to the Darling River, where, late Wednesday afternoon, they found the shore party of 9 in the lineman's hut.

Subsequently Messrs. Logan and Daykin, with the assistance of Mr. Martin, Mr. Bunker, and others, rendered valuable assistance in recovering the bodies of the victims.

CHAPTER VI.

CONDITIONS OF TIDE AND WEATHER.

On the night of Monday, January 22, high tide occurred at the point where the *Valencia* went ashore at practically midnight. The rise and fall of the tide during the next two days was about 8 feet. It appears clear that when the *Valencia* went ashore there was a strong southeast breeze, blowing 15 to 25 miles an hour; that this continued throughout the night, and that there was also a fairly heavy swell coming in from the ocean. Apparently Tuesday morning, and possibly part of Tuesday afternoon, the weather was less windy and the sea calmer than at any other time before the final break-up of the wreck. Showers and hazy weather were characteristic of the entire period.

The reports from Cape Flattery for this period as to the wind and weather are not at all definite, except on the point that during the entire night of January 22, until about 4 o'clock January 23, there was no fog or haze visible from Cape Flattery Light, and that Carmanah light was clearly visible from the Flattery Light during the entire night of the wreck and until dawn of the next morning. Also that the fog signal was stopped at 4 p. m. Monday and not started till 4.30 a. m. Tuesday. The log of Carmanah Light, 12 miles from the wreck, shows that on the morning of Monday and until 3.45 p. m. it was rainy and hazy and the fog signal blowing, but was stopped at 3.45 p. m.; that there was a fresh easterly wind, growing stronger on Monday night, and that the entry at 1 a. m. Tuesday morning is "strong easterly gale;" that it became hazy at 7 a. m. Tuesday, and the fog signal was started at 8; that there was also a strong easterly wind Tuesday night and Wednesday morning; 9.15 a. m. Wednesday morning a fresh easterly wind, cloudy and drizzle, and 3 p. m. Wednesday strong easterly wind, increasing toward night; that during the night of the wreck Flattery light was visible all night, thus corroborating the statement from Flattery that Carmanah light was visible there all night.

As bearing on the recommendations of the Commission and the peculiar conditions of this entrance to the Straits, one most important fact must be emphasized here, to wit, that during the entire night

when the *Valencia* went ashore, on which night she saw no lights and when the most distant view she got at any time was possibly 2 miles, having been in a bank of fog or haze continuously, it was nevertheless apparently quite clear in the neighborhood of these two nearest lights, so much so that neither operated its fog signal after 4 o'clock Monday afternoon, or until after dawn the next morning, and so far as could be told from these two lights there was no haze or fog that required the operation of the signals. This supports strongly the recommendations of the Commission, hereinafter set forth, as to the need of a light-ship on Forty Fathom Bank off the entrance to the Straits.

The condition of the sea from half past 9 a. m. till 1 p. m. Wednesday the 24th, covering the time when the rescue fleet was in the vicinity of the wreck and until it broke up, is of especial importance as bearing upon the possibilities of rescue, and there is a corresponding amount of conflicting testimony thereon, directed mainly to the point whether it would have been reasonably possible to get a lifeboat, such as the *Queen* or the *Topeka* carried, in to the wreck and out again, or to have approached more closely to the wreck with the *Queen*, or to have floated life rafts to the wreck under the tow of lifeboats, or to have gone sufficiently close to the wreck with lifeboats to get a line to it.

On the one hand we have the testimony of men on the *Topeka*, *Czar*, and *Salvor*, and especially on the *Queen*, all of whom were of the opinion apparently that a rescue was not possible. On board the *Queen* were Captain Cousins, her master, a man with an exceptionally good record for courage and efficiency, and practically the senior captain of the company's fleet, as well as five other experienced masters and pilots familiar with these waters, all of whom expressed their opinion at the time, and reiterated it before the Commission, that the sending of a lifeboat from the *Queen* in to the wreck on Wednesday morning would have meant the probable loss of the crew of the boat without any corresponding chance of success. Neither the master of the *Czar* nor the *Salvor* appeared before the Commission, but from their conduct their opinion must have been the same.

On the other hand, there is the evidence, first, of the survivors from the *Valencia* who were on that vessel when the rescue fleet was in sight; the evidence of Messrs. Logan and Daykin; the evidence of certain excellent photographs which were taken by Mr. Curtis, the photographer on the staff of the Seattle Post-Intelligencer,

from the deck of the *Topeka* on Wednesday, and which were submitted to the Commission as exhibits; and finally the experience of the volunteer crew which went out Tuesday morning, a day before the period now in question, and the experiences of the two life rafts which left the *Valencia* while the *Queen* was in sight offshore on Wednesday morning.

Low water occurred at 6.22 a. m. Wednesday, and the next high water thereafter at 12.11 p. m. Wednesday, a rise of 8 feet. The evidence of the observers on board the wreck is to the effect that there was substantially a continuous line of breakers in front of the *Valencia*, at right angles to her length, and various witnesses placed this line either at her bow or at varying distances, as far as 200 yards out. The waves were sweeping over most of the vessel except a small portion of the hurricane deck on the after-house, perhaps 20 or 30 feet in length, where the survivors were gathered. The vessel was lying on a comparatively even keel. Messrs. Logan and Daykin, who stood directly back of the vessel on the cliff, testified that this line of breakers ran along about 100 yards outside the bow of the *Valencia*, but that for a space of possibly 200 or 300 feet directly in front of the *Valencia* there was an interval of smoother water, which, if true, may explain some otherwise puzzling facts. It is possible that oil floating out from the sunken vessel may have caused this smooth water.

The volunteer crew went out Tuesday morning with comparative ease, but it is agreed that the sea on this day was smoother than on Wednesday. The most convincing testimony, however, as to the comparative smoothness of the sea, lies in the experience of the two life rafts that left the wreck while the *Queen* was in sight and within half an hour of each other. The first of these rafts went off with 10 men on board, and, with some of them rowing, got out beyond the line of breakers without losing anyone; was drifted westward down the current in the trough of the sea for at least 17 miles, and from the middle of the afternoon till sometime in the night when she went ashore carried the senseless or dead bodies of 4 of her passengers without any of them being washed off, and the survivors of this raft testified that they were at no time in any great danger of being washed off, even while going through the breakers, and that once outside the line of breakers they rode with entire safety.

The second raft, which went out within half an hour of the first, lay alongside the vessel at the stern for ten or fifteen minutes, moored

by a painter, rising and falling alongside, but apparently not colliding severely with her. Eighteen passengers, the full complement for this raft, got on board, some of them sitting and kneeling, and one, at least, standing up on her stern. When this raft was cut loose, four oars were gotten out, and other passengers provided themselves with paddles in the shape of bits of board, and with these means the raft was forced out through the surf and at least half to three-quarters of a mile beyond it without losing any passengers or oars. The use of an oar on a raft which lies so close to the water is, as a general proposition, a difficult task, and it is very hard to see how unskilled men under such conditions could manage to row through any surf which could be considered at all heavy.

With only one or two exceptions the passengers on the raft testified that they at no time felt any danger of being washed off and that no heavy seas came over them even while in the surf, and when these facts were outlined to the witnesses on the *Queen*, and especially to the experienced seamen who testified to a line of heavy breakers, they admitted themselves wholly unable to explain them, and said frankly that the experience of these rafts was a puzzle to them. Referring to the testimony of Messrs. Logan and Daykin, as to the narrow strip of comparatively smooth water directly in front of the *Valencia*, there may be here a partial explanation for this difficulty, and it is possible that these rafts went out through this smooth strip while the rescue fleet, which did not lie directly out from the *Valencia*, and therefore got only a diagonal view of her bow, did not observe this gap in the breakers. The water at the bow of the *Valencia* was about 5 fathoms in depth at low water, deepening gradually to seaward, and, with the swell that doubtless prevailed at the time of the wreck, it might easily be that the sea would break at this point, if not farther out.

CHAPTER VII.

EQUIPMENT OF THE VALENCIA.

During the year preceding the disaster the *Valencia's* equipment had been inspected three times, the last time three weeks before the wreck. So far as it appears from the testimony, her equipment was in excellent condition and completely fulfilled the requirements of the law and regulations, with certain very minor exceptions. She carried more life-preservers than was required and a larger boat capacity. Her engines and machinery were in good condition and her hull had recently been overhauled and repaired. There was some evidence to show that one of the thole pins in one of the boats did not fit, but this might have been due to inexperience of the person using it. There was also some evidence to the effect that one of the plugs in one of the boats was missing.

Complaints were made by some of the survivors as to the buoyant quality of the tule life-preservers. This fact is a matter which can not be charged against the owners of the vessel, inasmuch as such life-preservers were allowed by law and had been properly passed by the inspector. One or two witnesses stated that these life-preservers seemed to weigh 50 to 60 pounds when they got out of the water with them on, but these men were in an exhausted condition, and such estimates are, of course, incorrect, inasmuch as the cubic capacity of an ordinary life-preserver, if filled entirely with water, would not weigh over 40 pounds.

A public test was made by the Commission at Seattle of eight tule life-preservers, taken off as many different steamers in the harbor, with the result that they all sustained the test, and after an immersion of 17 hours in salt water, with 20 pounds attached to each, were all afloat, and the heaviest of them at the end of that time weighed 14 pounds, having absorbed 9 pounds 15 ounces of water.

Other tests were made at one of the factories where these life-preservers are made in San Francisco, where such life-preservers sustained a weight of 34 pounds for a short period.

These tests will be continued by the Department and the results laid before the Board of Supervising Inspectors, Steamboat-Inspection Service, which has jurisdiction over the subject.

CHAPTER VIII.

CONCLUSIONS.

In accordance with the facts set forth in the foregoing narrative, which contains, it is believed, substantially all the essential points brought out in the testimony, the Commission desires to state certain general conclusions bearing on the responsibility for the loss of life in this disaster:

(1) The *Valencia* went ashore through the faulty navigation of Captain Johnson, her master.

He appears to have been a man of good character, sober, and with a good reputation as a seaman, but his management of the vessel on this trip was unsatisfactory on several points, as follows:

(*a*) He acted upon the singular belief that his log was "overrunning 6 per cent," a belief that would have been justified only upon the ground that both the current and the wind were against him, whereas the wind was certainly nearly aft, and it is common knowledge among all masters along this coast that at this time of year the normal current flows toward the northward and accordingly with the course of the vessel, both of which facts would make the vessel go faster over the ground than through the water, and the log would therefore fail to register the entire progress of the vessel over the ground, and thus the log would *underrun*, if anything, rather than overrun.

(*b*) Although he saw no land or lights with certainty after passing Cape Mendocino at 5.30 a. m. Sunday, he did not commence to take soundings until 6 p. m. Monday, thirty-six hours later, when his last definite point of departure was at least 450 miles behind him.

(*c*) Even after he began to take soundings, he did not take them with sufficient frequency. He did not interpret correctly the soundings taken, and, so far as can be ascertained, he spent very little time in comparing the soundings with his chart and did not carefully study them, as he should.

(*d*) Such soundings as he got might not have shown him where he was, but if properly studied they would at least have demonstrated the fact that he was not where he thought he was and that he should be on his guard. It is a peculiarity of the bottom along

this course that if a vessel is proceeding as she should when approaching Umatilla Light-ship from the south and from there up to Cape Flattery, she will get a definite line of soundings of no great depth, varying from 25 to 50 fathoms, and as soon as she passes Cape Flattery and it becomes time to turn sharply to the east into the entrance to the Straits the bottom suddenly drops off on the correct course to a much greater depth, giving soundings ranging from 120 to 180 fathoms; and any master who has maintained proper relations to the coast before passing Umatilla Light-ship and is getting a continuous line of shallow soundings, keeping between the 20 and the 50 fathom curve, will have his position indicated to him with substantial certainty. When he gets over this "hole" and finds this line of deep soundings, he will then know that he can be in but one place and that that place is the entrance to the Straits, and he can then turn eastward and proceed down the Straits.

Captain Johnson failed utterly to get any such line of calculations, and, not getting them, he should have been put very much on his guard. It is a matter of mere geography, as he very well knew, that his northward course, if continued, must ultimately run him ashore on Vancouver Island. He knew that the coast of Vancouver was somewhere dead ahead of him, lying like a long wall almost directly across the northward course that he was maintaining in coming from San Francisco. The safety of any vessel on this course which intends to enter Puget Sound depends upon its making the turn at the proper time. The entrance to the Straits is about 12 miles wide, and a master making this northerly trip knows that he must either turn and find this 12-mile entrance, or, if he continues his course, go ashore on Vancouver Island.

With this certainty, therefore, that Vancouver Island is somewhere dead ahead on the northern trip, ordinary regard for the safety of passengers requires that the utmost caution should be exercised when approaching this entrance, and if there are any indications, either through soundings or current, fog, or haze, which create a doubt as to the vessel's actual position the vessel should be laid to or headed out to open sea until its position can be absolutely determined. Considering the remoteness of Captain Johnson's last point of departure, the well-known uncertain character of the currents, the deflecting effect of the wind and sea, and the peculiar nature of the soundings he got, he should have taken this prudent course.

Such action Captain Johnson failed to take, and upon his improper navigation in this respect must rest the primary responsibility for the disaster.

It seems very clear from the evidence, as well as from the experience of expert masters, that Captain Johnson was navigating the vessel in an unscientific and crude fashion, not availing himself of accurate means of information, but depending apparently more on his general belief that the vessel would arrive at the mouth of the Straits at a certain time, based probably on his previous experience on this run. This haphazard method of navigation seems almost incredible upon a modern passenger vessel, but it certainly took place in this case, and the Commission has reason to believe that other masters are occasionally guilty of similar methods—in navigating, as one master testified, by "horse sense," which is not a satisfactory substitute for accurate information when human lives are concerned.

(*e*) He allowed the two station men or lookouts to keep alternate watches of six hours each in length. A two-hour watch is sufficiently long for safety, and four hours should be the extreme.

(*f*) He did not require a boat drill of his crew and was not intending to have one probably until he reached Puget Sound. One-half the crew on the *Valencia* were new men, and thus this omission of the captain nullified to a large extent the usefulness of the boat equipment so far as this trip was concerned.

(*g*) As soon as the vessel struck, instead of leaving the boats in their chocks, where they would not have been interfered with by the passengers, he directed them to be lowered to the saloon rail, and thus made it possible for them to be taken possession of by the passengers and unskillfully lowered away in the confusion, and, although he ordered the boats when lowered to be lashed to the rail, he took no steps to see that this was done or to protect the boats from the inrush of the passengers.

To thus place the boats within the reach and control of excited passengers would have been justifiable only if he had had a crew perfectly trained to handle and guard the boats, and the crew training required for such an operation would be rarely found on any merchant vessel and certainly did not exist on the *Valencia*. Considerable allowance, however, must be made for the confusion and alarm at this time, and for the desire of the captain to take prompt action.

Captain Johnson's conduct after the vessel struck and the boats had been lowered was satisfactory, and he apparently did all he could for the safety and comfort of his passengers, and showed courage and judgment.

The Commission regrets that it is obliged to criticise the actions of a man who went down with his ship and who is unable to defend

himself; but for the complete understanding of this disaster and the proper establishment of the important lessons thereof it is necessary to call attention to the primary causes that led to the wreck and the loss of life, so that they may be impressed in the future upon masters having similar responsibility, and so that such masters may be led to avail themselves of all possible means of information.

(2) Excepting possibly her bulkheads and one set of davits, the construction and equipment of the *Valencia*, so far as the safety of her passengers was concerned, was excellent, and none of the loss of life was due to any defect therein. The question of the buoyant qualities of the tule life-preserver is one for determination by the Government, and inasmuch as such life-preservers were allowed by the regulations no blame should be attributed to the steamship company for having them on board.

(3) The measures taken by the steamship company to send vessels to the rescue were as complete as possible under the circumstances, with the single exception that Captain Cousins should have been ordered to stop at Neah Bay on his way down to the wreck with the *Queen*, so as to pick up there, if possible, any available seagoing tug that might be in that bay or vicinity. Captain Patterson admits in his testimony that when he received news of the wreck he knew (on general principles) that there were probably one or more tugs at this bay; he also knew that the wire to that place was out of order and that the tugs could not be reached from Seattle. The *Queen* actually lay in the mouth of the Straits from about 10 o'clock Tuesday night until early Wednesday morning, within 15 or 20 miles of Neah Bay. As a matter of fact, there were tugs at this bay at the time. Either Mr. Pharo or Captain Patterson should have directed the *Queen* to stop at Neah Bay for a tug on the way down.

While this was a serious omission from the standpoint of the results, it is hardly surprising that this point was overlooked in the haste and confusion of the short period, perhaps an hour and a half, from the time the news of the wreck was received at the Seattle office until the time the *Queen* left Victoria, and the officials of the steamship company can hardly be severely criticised for overlooking this precaution. It is only fair to say that the company exerted itself very vigorously in the recovery of bodies, in providing clothing and lodgings for the survivors, and in all measures of relief, at a total expense to the company of over $15,000.

(4) The order given to the *Queen* from the *Topeka* at 11 o'clock Wednesday morning off the wreck to leave the scene and return to

Victoria was wrong. The Commission believes that, as a matter of legal right, Mr. Pharo was the supreme authority on the spot in regard to an order of this nature. Captain Patterson, who was on the bridge of the *Topeka* with Mr. Pharo when the order was given, and who actually delivered it through the megaphone, admits in his testimony that he (Patterson) was "the original suggester of the order." This is probable, inasmuch as Captain Patterson was a master of wide experience and excellent ability in matters of navigation, and doubtless Mr. Pharo relied upon him for practical judgment in these matters. The Commission therefore believes that the legal responsibility for this order rests upon Mr. Pharo and the moral responsibility upon Captain Patterson, and that both of them are highly censurable for having issued or sanctioned this order.

It is hard to understand the motive for this order. Probably it was the desire that the *Queen* should return and resume her regular business in the commercial interests of the company, though it must be said that the Pacific Coast Steamship Company, throughout the entire matter, seems to have spared no effort or expense, except in this one case, to effect a rescue and to relieve the survivors. Both of these men argued on the witness stand that upon the arrival of the *Topeka*, which drew 17 feet, the presence of the *Queen*, drawing 21 feet, was no longer of any use, as she was unable to go in as shallow water as the *Topeka*, and being a larger vessel was less easily handled, and that inasmuch *as only one vessel was needed there* the *Topeka* was the one that should have remained. This argument shows the error in their entire position.

There was need for as many vessels there as could be gotten. When the *Topeka* arrived alongside the *Queen*, the *Queen* had not, by reason of the haze, seen the wreck for nearly an hour. The immediate question was, therefore, not one of rescue but of finding the wreck; and, as a matter of fact, the *Topeka* during the rest of that afternoon patrolled a beat of 6 or 8 miles up and down the coast over and over again in the vain attempt to find the wreck. Furthermore, Messrs. Logan and Daykin testified that when the wreck broke up, about an hour after the departure of the *Queen*, a number of those still remaining on the wreck, and all having life-preservers on, floated out to sea. It is obvious, therefore, that, had the *Queen* remained, twice as much ground could have been covered by the patrol in the attempt to find the wreck, and the officers of the *Queen* had the best knowledge of where the wreck was, and thus there would have been more than double the chance of finding

the wreck, and also this would have doubled the chance of picking up some of the survivors floating seaward from the wreck.

It might easily have happened that while the *Topeka* was engaged in her vain search westward the *Queen*, had she been there, might, by going in the other direction, have located the wreck again and picked up a number of these last victims. It is of course impossible to say whether the retention of the *Queen* at the scene of the wreck would have saved any lives, but it is equally hard to see why, under the circumstances and in view of the possibilities, she was not ordered to remain.

(5) The officers of the *Topeka* never saw the wreck and therefore could take no means of rescue. The officers of the *Queen*, however, were in sight of the wreck for about an hour (during part of which time they were occupied, it is true, with conversations with the *Czar*), and the question of sending boats to the wreck was discussed by the officers of the *Queen* and the masters and pilots on board, and was unanimously decided in the negative. This failure to make an attempt to send boats to the wreck, or to drift a raft to it, or to get a line to it, raises a question which, of all others, the Commission found most difficult to decide. Undoubtedly the sea was of considerable strength and the coast dangerous, there being apparently a continuous line of breakers between them and the *Valencia*.

Unquestionably the men on board the *Queen*, as a matter of common humanity, desired to do the best they could to effect a rescue; no men in their position could have felt otherwise. On the other hand, from the incontestable experience of the boat and the life-rafts from the *Valencia*, the Commission believes that there was a fair chance of establishing communication with the wreck either by way of boats or by drifting a raft to her, but the men on the *Queen* knew nothing at the time of the experience of these rafts, and there was doubtless considerable justification from their standpoint for their belief that the establishment of this communication was practically impossible.

It was practically the unanimous opinion of a large number of witnesses that the ordinary lifeboats could have been safely taken in toward the wreck as long as they kept outside of the line of breakers. Outside of this line the sea was not combing or breaking, and small boats would have been perfectly safe. This line of breakers was probably not more than from 100 to 200 yards out from the bow of the *Valencia*. Had the *Queen* and the *Topeka*

both remained on the spot, and had the wreck been again located, a number of boats might have been held just outside the line of breakers, and some of the survivors drifting seaward would have been picked up. Furthermore, had this close approach been made to the line of breakers with the boats the men in them might have seen reason to change their opinion that a boat could not be gotten through the breakers, and a rescue might have thus been attempted directly to the wreck. Moreover, had boats been thus sent in to the line of breakers before the wreck was again located, its location might have been ascertained in this way. But for some reason no boats were lowered for this purpose. It was claimed by some witnesses that it was unsafe to lower a boat from the *Queen* on that day, but, as a matter of fact, the *Topeka* did lower a boat with safety and without difficulty about an hour later to pick up the raft.

On this point, therefore, the Commission desires to express no opinion, but is compelled to observe that there was certainly no display of the heroic daring that has often marked other such emergencies in our merchant marine.

(6) As to the conduct of the *Czar* and the *Salvor*, the Commission is under certain peculiar restrictions in stating any definite conclusions. These vessels are not of American registry and their officers are not subject to American laws. Furthermore, they owed no duty under the circumstances except that of ordinary humanity; and, finally, with one exception, none of the officers of these vessels appeared before the Commission. Also, a conflict of testimony exists as to whether the *Czar*, when she left the scene of the wreck, knew there was life on board the wreck or had any reason to think it possible.

The established facts, therefore, are that the *Czar*, in company with the *Salvor*, lay off the wreck near the *Queen* while the wreck was visible; that the *Czar* approached within possibly a mile or a mile and a half of the wreck; that she shipped considerable water; that she came back at once to the *Queen* and reported that there was no life on the wreck; that Captain Cousins told her that there was life there; that it is uncertain whether the officers of the *Czar* understood this information; that the *Czar* then stated that she was "going for shelter," and in company with the *Salvor* left the scene while the wreck was still visible. Any judgment of this conduct of the *Czar* and the *Salvor* must turn about the one point as to whether the captain of the *Czar* knew there was life on the wreck or whether he had any reason whatsoever to consider it possible.

Two witnesses on the *Queen* swear to a discussion between the *Queen* and the *Czar* as to this question of life upon the wreck, and if this discussion actually took place it of course must have raised at least a question of doubt in the mind of the captain of the *Czar*. The Commission believes that on the evidence as submitted to it the captain of the *Czar* had sufficient information, either of his own or from the *Queen*, to raise a doubt at least in his mind as to this point. The *Salvor* had no conversation with the *Queen*, and acted solely upon what the *Czar* told her. A witness who was present on the *Salvor* testified thus, the transcript of testimony, questions and answers, reading as follows:

Q. I am after this point, Captain: The *Queen* told the *Czar* emphatically that there was life on the wreck; the *Czar* came and reported to the *Queen* that there was not, and the *Queen* said there was. Now, did the *Czar* report to you what the *Queen* said about it?—A. No, sir.

Q. Said nothing about the belief of the *Queen?*—A. No; not at that time.

Q. Did she later on?—A. Yes; at Bamfield.

Q. What did she say at Bamfield?—A. Captain Troupe was talking with Captain Christensen, and I was on deck alongside of him, and Captain Christensen stated emphatically that he could not see any signs of life on the wreck; and he mentioned then that they had spoke about it on the *Queen*, and said that they had heard three shots fired. Captain Troupe was rather put out about it, and he went in to speak to the others on board about it—Captain Cox and Mr. Bullen. Pilot Campbell was standing on the deck of the tug, and I asked him, and he seemed to have some doubt as to life being on board the ship. As soon as I knew that I told Captain Troupe, "Campbell is not so sure as to whether there is life on the vessel or not." "Well," Captain Troupe said, "if there is any doubt about it we will just get to work." So we formed our rescue party right then and sent the *Czar* for the whaler.

Captain Troupe, referred to in the above conversation, was in charge of the *Salvor*, Captain Christensen master of the *Czar*, and Campbell pilot of the *Czar*.

These men, the officers of the *Czar* and the *Salvor*, are Canadian citizens, and the Commission does not deem it proper to criticise the conduct of other than American citizens, but considers that its duty has been done in this matter when it has stated what it believes to be the facts.

(7) From the personal examination made by the Commission of the Steamboat-Inspection Service at Seattle and the officers thereof, and from the results of the very thorough reinspection, by naval officers detailed for that purpose, of 35 vessels coming into the port of Seattle about the time of the hearings there, the Commission finds, with a few minor exceptions, that the condition of the Steamboat-Inspection Service at this port is excellent in point of efficiency.

(8) Reserving the most important conclusion for the last, the Commission desires to emphasize, as the primary and greatest cause of the loss of life, the defective state of the aids to navigation and preservation of life in the shape of light-houses, fog signals, life-saving equipment, and means of communication in the vicinity of the wreck.

Owing to the peculiar weather conditions at the entrance to the Straits, the *Valencia* was navigating in a haze which prevented her from seeing the lights, while at Cape Flattery Light itself the weather was clear and the fog signals were not sounding; in other words, the most important light in this entire course, to wit, that on Cape Flattery, is not placed in the zone where, by reason of the fog and the thick weather, the greatest danger lies.

The nearest United States life-saving station is on the south side of Grays Harbor, 110 miles away from the wreck, and therefore absolutely inadequate to cover this dangerous locality.

The telegraphic communications from Cape Flattery and Neah Bay are of the most precarious kind, the wires being strung on trees and continually out of order through falling trees and other accidents, and when needed to secure tugs from Neah Bay to go to the wreck the wire was out of order.

This part of Vancouver Island is substantially an almost impenetrable wilderness, with nothing of civilization in the interior in this vicinity and only a few inhabited points along the coast. Almost a similar condition exists on the coast of the State of Washington, though somewhat more inhabited.

In order to satisfy the just desire of the public in regard to all details of this disaster, the Commission has, as above indicated, stated its belief as to any points where lack of human effort or errors in judgment on the part of private individuals contributed to loss of life; but when all that is possible has been said in this direction, it must be frankly admitted that by far the greater part of the responsibility for such loss of life lies upon the fundamental natural conditions inherent in this locality, and that the extent of this disaster was in large measure due to the permanent and unavoidable perils of the sea; that the question is by far more one of navigation and the safeguarding of the coast and the waterways than of anything else, and that the only source from which any substantial correction of such evils can come is the Federal Government. Therefore, earnestly holding this belief, the Commission has hereinafter set forth its recommendations for action by the Government.

It is necessary and proper to establish responsibility in connection with this disaster and to censure any who may have been in fault, but this will not restore the lives of the victims nor will it protect passenger traffic in the future. If such a terrible disaster must occur, it must be regarded primarily in the nature of a lesson for the future—a lesson not to be disregarded—and if the Government, acting upon this lesson, shall make all reasonable provisions within its power for the safeguarding of this coast, the victims of the *Valencia* will not have perished in vain.

CHAPTER IX.

RECOMMENDATIONS.

The Commission desires to make certain recommendations, as a result of its investigation, for the better protection of life and property involved in traffic on Puget Sound and the entrance to the Straits. In order to bring the matter at once to the attention of the public, the Commission, as soon as it adjourned its hearings in Seattle, issued a brief statement of recommendations, and these recommendations, with additional ones, will now be taken up and the reasons for them given.

(1) Such changes should be made in the present equipment, if any such are needed, at Cape Flattery Light as will insure the existence there of a light of the first order and of the highest possible efficiency, and a fog signal also of the highest possible efficiency. The details of such improvements are a matter for the expert consideration of the Light-House Board. The Commission merely desires to suggest the possible value of the installation of a vertical beam of light at this place. It is understood that the Light-House Board will try a siren there, and if it is more effective than the fog whistle it will be installed permanently.

(2) Umatilla Reef Light-ship. Such changes should be made in the present equipment of this light-ship, if any such are needed, as will insure the existence there of a light of the first order and of the highest possible efficiency, and a fog signal of the highest possible efficiency, the details to be left for the consideration of the Light-House Board.

(3) There should be established a light-ship to be anchored on the so-called "Forty Fathom Bank" off the entrance to the Straits, at a point about 14 miles from Cape Flattery, north 60° west, magnetic. The light should be of the first order, with corresponding fog signal.

It is believed that the reasons for the above recommendations have been brought out with considerable emphasis in the preceding part of this report and that the *Valencia* wreck is a forcible illustration of such reasons. Briefly stated, they are as follows:

This entrance to Puget Sound through the Straits of Juan de Fuca is probably the most important single entrance on the Pacific coast.

The Commission believes, from various estimates, that from 5,000,000 to 6,000,000 tons of traffic a year pass through this entrance, and the importance thereof is rapidly increasing. A number of important steamship lines, both passenger and freight, to the Orient, and a vast amount of coastwise shipping between the more southern ports on the Pacific coast and Seattle, Tacoma, Everett, Bellingham, Victoria, and other important Puget Sound cities, pass over this course.

The dangers of this entrance are out of all proportion to the present light-house and fog-signal equipment. The conditions of coast and weather are wholly different from those prevailing on the Atlantic coast; the coast itself is bluff and rocky; deep soundings may be obtained close inshore and are therefore of little value in determining a ship's position, and throughout at least one-half the year fogs and haze prevail in this vicinity, and these fogs lie in such peculiar formations that, as was the case with the *Valencia*, vessels offshore may be in a fog or haze while the shore lights are in clear weather and their keepers have no knowledge that the fog is in existence and hence do not operate their fog signals. It is also well known, by experiments of the Light-House Board made on the Atlantic coast, that the radiation of sound from fog signals is extremely erratic and that such signals can not be relied upon, nor is it even possible to determine decisively the causes of these aberrations. The Commission itself, while cruising off Cape Flattery Light in comparatively clear weather, at a distance westerly of a mile and a quarter, saw repeatedly the steam issue from the fog signal at the light as it was blowing, but could not hear the signal.

This entrance to the Straits is of somewhat peculiar geographic nature, as will be observed from the chart in this report. The west shore of Vancouver Island lies almost directly across the inward course of steamers coming there from the Orient and especially of those coming from down the coast. In case of steamers coming from down the coast, they must proceed up the coast headed *directly toward* Vancouver Island, and, upon reaching Cape Flattery, must then turn sharply to the eastward and find the entrance to the Straits, which is about 12 miles wide, and if this turn is not made at the proper time, as was the case with the *Valencia*, the vessel must inevitably go ashore on the Vancouver coast.

Evidence covering a period from 1855 to 1890, exhibited to the Commission, showed wrecks of 35 vessels in as many years on the west shore of Vancouver in this vicinity, all of which vessels had been

 Davidson's track chart.

trying to make this entrance to the Straits; and since 1890 at least as large an additional proportion of vessels has gone ashore there, so it is safe to say that at least an average of one wreck a year occurs in this locality, and probably during the time these records have been kept in the last fifty years between 500 and 700 lives have been lost there, to say nothing of millions of dollars' worth of property. Cape Flattery, therefore, and its immediate vicinity is the key or turning point of the entrance to the Straits and is of the utmost importance to navigators.

There exist also currents in this locality, and as far down as San Francisco, which vary in force and direction with the varying seasons of the year, and also, within a given season, vary with the different conditions of the wind, and are further complicated at the mouth of the Straits by the strong tides there, and these currents are at present very little understood, even by those who navigate them constantly. The fact that the *Valencia* was off her course was primarily due to the existence of such a northward current.

These facts emphasize particularly the need for a light-ship on Forty-Fathom Bank. This light-ship would be sufficiently offshore to be substantially in the course of those vessels that have gone ashore on Vancouver through missing the Straits, and would also be in the region of haze and fog to a much greater extent than either Cape Flattery Light or Carmanah Light (which is on Vancouver, directly across from Cape Flattery Light), so that the conditions around the light-ship in this respect would be much more nearly the same as the conditions met by the average incoming vessel.

(4) A first-class, ocean-going, life-saving steamer or tug officered and manned by the most skillful life-saving crew available, should be stationed at Neah Bay, which is within 5 miles of Cape Flattery and the entrance to the Straits, and the only available harbor in that locality, to be equipped with the best possible appliances of surf-boats and lifeboats, with a wireless telegraph apparatus. The Commission understands that a bill for this purpose has already passed the Senate and has been favorably reported by the House committee. In conjunction with this there should be a telegraph and telephone line skirting the coast from the life-saving station at Grays Harbor, passing through the light station at Cape Flattery, to Neah Bay, thence to the nearest town on Puget Sound. This wire should run along a practicable foot trail, which should be kept open continuously and marked at frequent intervals by signboards indicating the locality and direction, and should

enter intermediate telegraph and telephone huts at intervals of a few miles along the said line of wire.

(5) A system of wireless stations should be established, including stations at Cape Flattery Light, Point Wilson or Point Partridge, Seattle, and at the Puget Sound Navy Yard, and also down the Pacific coast at least to Grays Harbor. The Commission is advised that the Navy Department has now in course of building a wireless station at Cape Flattery and that it has appropriations already granted for Point Wilson and Seattle. If this be done by the Navy Department, it will fulfill the requirements of this recommendation.

The reasons for the two foregoing recommendations are also, it is believed, fairly obvious from the preceding parts of this report. The life-saving tug is the only practicable form of life-saving service in this locality. Communication overland by life-saving equipment from a given station, such as is practiced on the Atlantic coast, is absolutely impossible, owing to the uninhabited nature of the country and the total lack of roads and footpaths. The nearest life-saving station to Cape Flattery is now at Grays Harbor, 90 miles south, and for any use at Cape Flattery the Grays Harbor station might as well be at Boston. A life-saving crew and equipment in this vicinity must be able to proceed by water to points of emergency, and inasmuch as it must cover a radius of at least 30 or 40 miles navigation must be by steam. The vessel should be equipped with wireless telegraph, so that vessels similarly equipped may communicate with it.

It is believed by the Commission, based upon the assurances of important steamboat interests on this coast, that as soon as the Government establishes wireless outfits at Cape Flattery wireless apparatus will also be installed on a large number of steamers on this coast, so that intelligence can be transmitted from them to the light-house at Cape Flattery and also to this proposed new life-saving tug at Neah Bay. The question of communication was one which played a very serious part in the *Valencia* disaster. Had there been a wireless apparatus at Cape Flattery at that time it is almost certain that rescue tugs could have been at the scene of the wreck by Tuesday evening, at least twelve hours before the rescue fleet actually got there and if the *Valencia* had also been equipped with wireless apparatus the rescue tugs could probably have been at the scene of the wreck early Tuesday morning.

(6) The entire Pacific coast, including the coast of Alaska, is now comprised within two light-house districts with three light-house tenders. At least one new light-house district should be established

in order to accomplish anything like a proper supervision of this territory. Upon a comparatively equal stretch of coast on the Atlantic, there are eight light-house districts, with thirty-eight light-house tenders of various sizes.

(7) There should be made and published a careful series of observations of the currents along this coast during at least a period of one year and covering all possible conditions of season, weather, and winds, to ascertain, if possible, whether any definite rules can be established for the guidance of mariners as to the operations of these currents. This work could be taken up directly in connection with the work of the Coast and Geodetic Survey and only a comparatively small appropriation would be necessary to enable the Survey to carry it out.

(8) The Department of Commerce and Labor should continue its exhaustive series of tests as to the merits of the tule life-preserver, and collect information thereon from all possible sources and submit all the tests already made, and hereafter to be made, to the Board of Supervising Inspectors.

(9) Regulations should be formulated by the Department of Commerce and Labor directing the officials of the Steamboat-Inspection Service to require, so far as possible in their localities, a uniform system of signals for boat and fire drills on steam vessels, so that sailors shifting from one vessel to another, as they constantly do, may find the same system on board all vessels.

(10) Steamship owners should require their masters and navigating officers to procure and have on board the best and most modern charts and all the publications of Government bureaus bearing upon questions of navigation, currents, winds, tides, etc., and should see that the navigating officers use and become familiar with all these sources of information.

(11) The Commission also recommends that masters be required by regulation to have their fire and boat drills as soon as reasonably possible after leaving port.

Respectfully submitted.

LAWRENCE O. MURRAY,
Assistant Secretary of Commerce and Labor,
Chairman.

WILLIAM T. BURWELL,
Captain, U. S. Navy,
Commandant of Puget Sound Navy Yard.

HERBERT KNOX SMITH,
Deputy Commissioner of Corporations,
Secretary of Commission.

I desire to recommend also that a system be established of frequent transfers of local inspectors from one port to another; and that additional life-saving stations be provided on this coast supplemental to the proposed life-saving vessel for Neah Bay, and that some provision be made for sufficient manning of vessels by seamen.

WILLIAM T. BURWELL,
Captain, U. S. Navy,
Commandant of Puget Sound Navy Yard.

To the PRESIDENT.

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